

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

OFFICE OF DESIGN POLICY & SUPPORT INTERDEPARTMENTAL CORRESPONDENCE

FILE P.I. # 0013726

Fayette County

GDOT District 3 - Thomaston

SR 54 @ SR 74 - Displaced Left Turn

OFFICE Design Policy & Support

DATE 8/09/2018

FROM  Brent Story, State Design Policy Engineer

TO SEE DISTRIBUTION

SUBJECT APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

DISTRIBUTION:

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Albert Shelby, Director of Program Delivery
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Marsheia Smith, Project Manager
BOARD MEMBER - 3rd Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT**

Project Type:	<u>Reconstruction/Rehabilitation</u>	P.I. Number:	<u>0013726</u>
GDOT District:	<u>3</u>	County:	<u>Fayette</u>
Federal Route Number:	<u>N/A</u>	State Route Number:	<u>54 and 74</u>
Project Number:		<u>N/A</u>	

This project involves the conversion of SR 54 at SR 74 to a Displaced Left Turn (DLT).

Submitted for approval:

Consultant: Doug Tilt, PE Arcadis U.S., Inc.

6/1/2018
Date

[Signature]
State Traffic Engineer

8/10/17
Date

[Signature]
GDOT Project Manager:

8/10/17
Date

Recommendation for approval:

*Christina D. Barry/AT
for State Traffic Engineer

9/5/2017
Date

*Eric Duff/AT
State Environmental Administrator

2/23/2018
Date

*Tyler Peek/AT
District Traffic Engineer

3/9/2018
Date

- ☒ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- ☐ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

*Cynthia L. VanDyke/AT
State Transportation Planning Administrator

9/5/2017
Date

Approval:

Concur:

[Signature]
GDOT Director of Engineering

7/12/18
Date

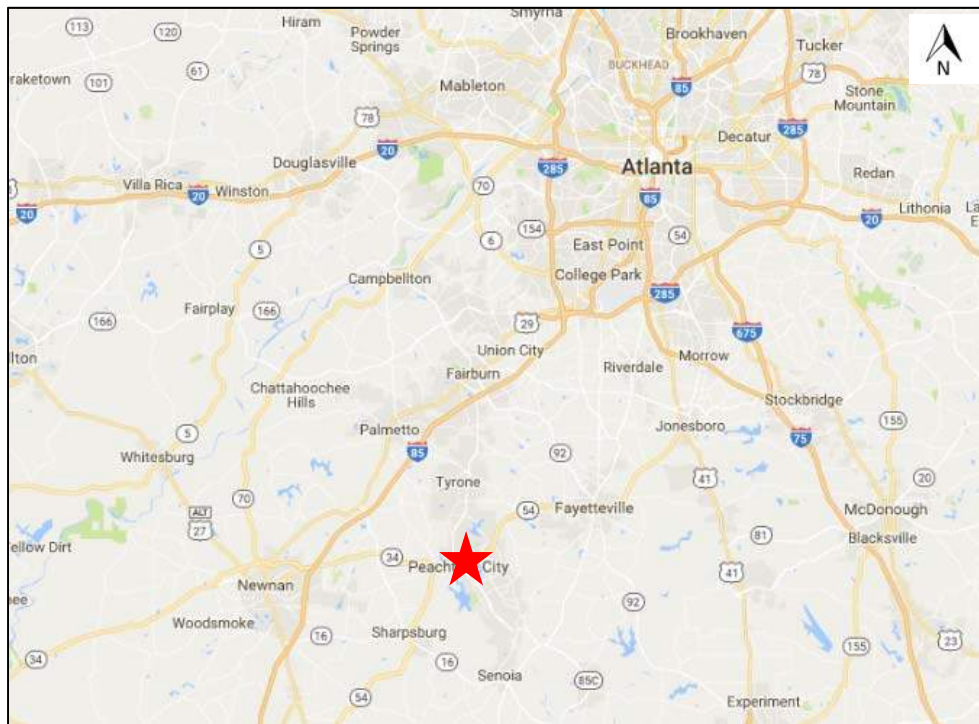
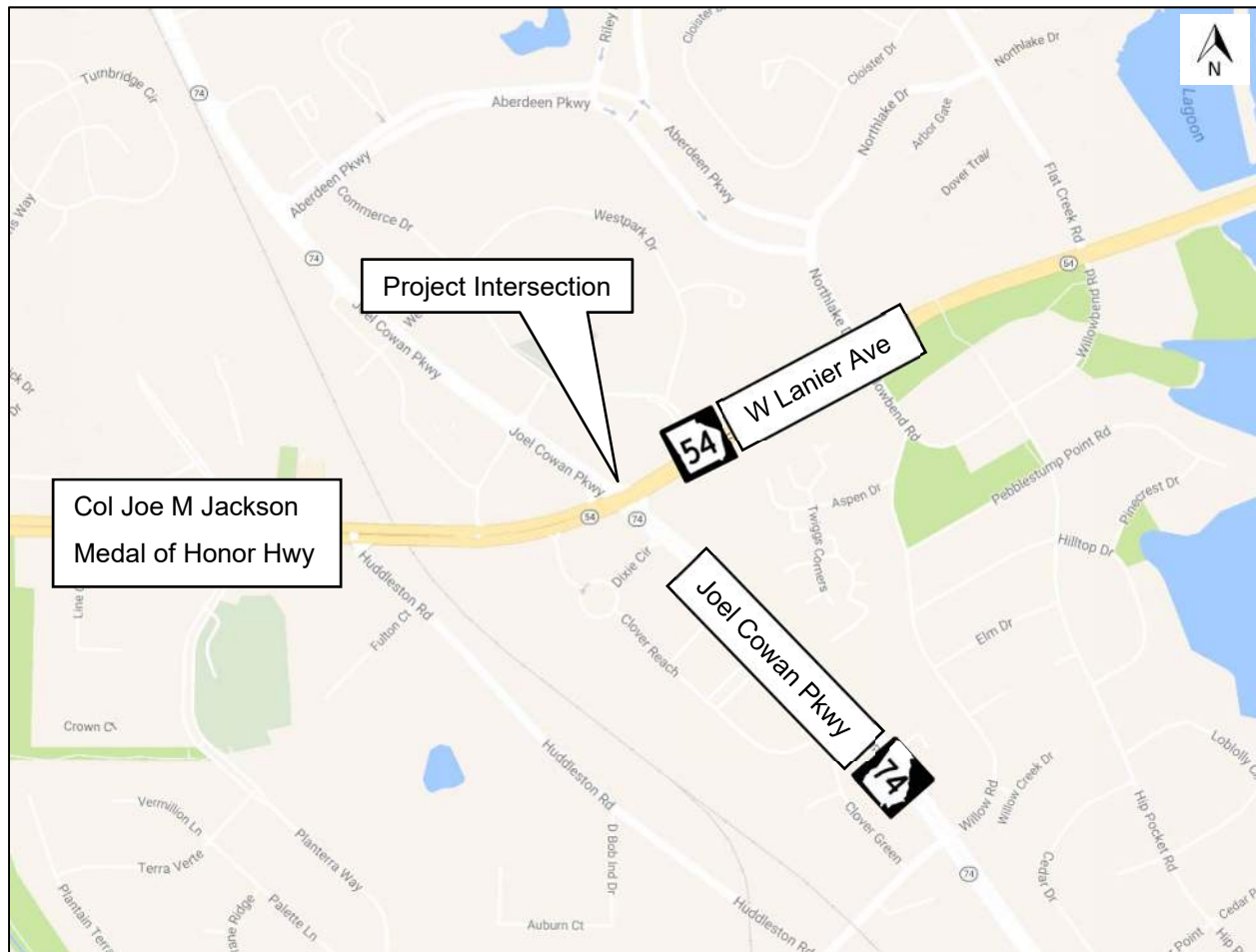
Approve:

[Signature]
GDOT Chief Engineer

7/24/18
Date

*Recommendations on File

PROJECT LOCATION MAP



County: Fayette

PLANNING & BACKGROUND DATA

Project Justification Statement: This Project Justification Statement was prepared by ARCADIS U.S., Inc., was approved by Georgia Department of Transportation (GDOT), and is on record at GDOT Office of Traffic Operations.

SR 54 at SR 74 in Fayette County was identified for major intersection improvements. The proposed project is to be included in the GDOT Operational Improvement Lump Sum Program from the Office of Traffic Operations. This proposed project was approved by the Statewide Operational Improvement Committee on July 8th, 2015. Voting members typically consist of the following people or their designee:

- Chief Engineer
- Director of Operations
- Director of Engineering
- State Traffic Engineer
- State Transportation Planning Administrator

This project was proposed by Office of Traffic Operations, who observed heavy queuing in three key turning movements at the intersection: SR 74 northbound left traffic to SR 54 westbound, SR 74 southbound right traffic to SR 54 westbound, and SR 54 eastbound left traffic to SR 74 northbound. Traffic Operations staff further evaluated the intersections and estimate that the 2021 overall intersection delay will be 76.9 seconds/vehicle in the AM peak hour and 113.5 sec/veh in the PM peak hour. By 2041 the delay is expected to increase by 43 percent to 109.7 sec/veh and 132.5 percent to 263.9 sec/veh in the AM and PM peak hours respectively.

Existing conditions:

SR 54: SR 54 Westbound intersection approach has one left turn lane, two through lanes, and one right turn lane. The Eastbound intersection approach has two left turn lanes, two through lanes, one right turn lane and a five-foot sidewalk

SR 74: SR 74 is a 6-lane divided highway with 5-foot sidewalks aligning both sides of the street to the north and south of the intersection. The Southbound intersection approach has one left turn lane, three through lanes, and one right turn lane. The Northbound intersection approach has two left turn lanes, three through lanes, and one right turn lane.

Other projects in the area:

1. P.I. No. 0006905 – SR 54 at SR 74 grade separation. (Long Range)
2. P.I. No. 0010614 – SR 54 west landscape enhancement includes the installation of plant material within the medians and ROW of the SR 54 corridor from SR 54 from SR 74 to Line Creek Bridge. No changes to the existing lane configuration or median widths are proposed, as well as no on-street parking, streetlights, utility poles, or pedestrian amenities.
3. P.I. No. 0015076 – Corridor study of SR 74 from SR 14/US 29 to SR 54.
4. P.I. No. M004955 – Resurfacing of SR 54 from Coweta County Line to McDonough Road due to deterioration of existing pavement. (Mgt Let Date 9/22/2017)

MPO: Atlanta TMA

TIP #: AR-106-2021

Congressional District(s): 3

Federal Oversight: ☐ PoDI ☒ Exempt ☐ State Funded ☐ OtherProjected Traffic: ADT 24 HR T: 3.1%

SR 54

Current Year (2017): 44,150 Open Year (2021): 46,050 Design Year (2041): 56,250

SR 74

Current Year (2017): 32,400 Open Year (2021): 33,700 Design Year (2041): 41,250

Traffic Projections Performed by: Arcadis U.S., Inc.
Date approved by the GDOT Office of Planning: May 12, 2017 through Landon Perry in the GDOT Office of Traffic Operations.

Functional Classification (Mainline):

SR 74 North of intersection: Urban Principal Arterial
SR 74 South of intersection: Urban Minor Arterial Street
SR 54: Urban Principal Arterial

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:

Warrants met: ☐None ☒Bicycle ☒Pedestrian ☐Transit

Existing bicycle infrastructure exists along SR 54 and SR 74 and will not be impacted by the proposed project. Pedestrian infrastructure will be maintained or replaced throughout the project corridor.

Pavement Evaluation and Recommendations

Initial Pavement Evaluation Summary Report Required? ☐No ☒Yes
Initial Pavement Type Selection Report Required? ☒No ☐Yes
Feasible Pavement Alternatives: ☒HMA ☐PCC ☐HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: This project proposes to reconstruct the SR 54 at SR 74 intersection as a Displaced Left Turn (DLT).

Major Structures: N/A

Mainline Design Features: SR 74 (North of intersection) - Urban Principal Arterial

Feature	Existing	Policy*	Proposed
Typical Section			
- Number of Lanes	4		4
- Lane Width(s)	10'-12'	11'-12'	12'
- Median Width & Type	20'-30' Raised	20' Raised	10'-20' Raised
- Border Area Width	16'	10'-16'	16'
- Outside Shoulder Slope	2%	2%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	5'-6'	5'	5'
- Auxiliary Lanes	11'-12'		12'
- Bike Accommodations	Existing shared use path	4-5ft	Existing shared use path
Posted Speed	40		40
Design Speed	40	40	40
Minimum Horizontal Curve Radius	N/A	N/A	N/A
Maximum Superelevation Rate	N/A	N/A	N/A
Maximum Grade	N/A	N/A	N/A
Access Control	N/A		Partial
Design Vehicle	WB-67		WB-67
Pavement Type	Asphalt		Asphalt

*According to current GDOT design policy if applicable

Mainline Design Features: SR 74 (South of intersection) - Urban Minor Arterial Street

Feature	Existing	Policy*	Proposed
Typical Section			
- Number of Lanes	6		6
- Lane Width(s)	10'-12'	11'-12'	12'
- Median Width & Type	20'-30' Raised	20' Raised	10'-26' Raised
- Border Area Width	16'	10'-16'	16'
- Outside Shoulder Slope	2%	2%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	5'-6'	5'	5'
- Auxiliary Lanes	11'-12'		12'
- Bike Accommodations	Existing shared use path	4-5ft	Existing shared use path
Posted Speed	40		40
Design Speed	40	40	40
Minimum Horizontal Curve Radius	N/A	N/A	N/A
Maximum Superelevation Rate	N/A	N/A	N/A
Maximum Grade	N/A	N/A	N/A
Access Control	Partial		Partial
Design Vehicle	WB-67		WB-67
Pavement Type	Asphalt		Asphalt

*According to current GDOT design policy if applicable

Mainline Design Features: SR 54 - Urban Principal Arterial

Feature	Existing	Policy*	Proposed
Typical Section			
- Number of Lanes	4		4
- Lane Width(s)	10'-12'	11'-12'	12'
- Median Width & Type	20'-30' Raised	20' Raised	20'-36' Raised
- Border Area Width	10'-12'	10'-12'	10'-12'
- Outside Shoulder Slope	2%	2%	2%
- Inside Shoulder Width	N/A	N/A	N/A
- Sidewalks	5'-6'	5'	5'
- Auxiliary Lanes	11'-12'		12'
- Bike Accommodations	Existing shared use path	4-5 ft.	Existing shared use path
Posted Speed	45		45
Design Speed	45	45	45
Minimum Horizontal Curve Radius	N/A	N/A	N/A
Maximum Superelevation Rate	N/A	N/A	N/A
Maximum Grade	N/A	N/A	N/A
Access Control	Partial		Partial
Design Vehicle	WB-67		WB-67
Pavement Type	Asphalt		Asphalt

*According to current GDOT design policy if applicable

County: Fayette

Is the project located on a NHS roadway? ☐ No ☒ Yes

Design Exceptions/Design Variances to FHWA or GDOT Controlling Criteria anticipated: N/A

Design Variances to GDOT Standard Criteria anticipated: N/A

Lighting required: ☐ No ☒ Yes

Since the DLT intersection is an unconventional intersection design, lighting is considered to be desirable.

Off-site Detours Anticipated: ☐ No ☒ Undetermined ☐ YesTransportation Management Plan [TMP] Required: ☐ No ☒ YesIf Yes: Project classified as: ☒ Non-SignificantTMP Components Anticipated: ☒ TTC

INTERCHANGES AND INTERSECTIONS

Major Interchanges/Intersections: N/A

Intersection Control Evaluation (ICE) Required: ☐ No ☒ Yes

ICE has been completed for this project. See attachment 6b.

UTILITY AND PROPERTY

Railroad Involvement: N/A

Utility Involvements: Utilities with facilities in the vicinity of the project area include:

1. Atlanta Gas Light
2. AT&T
3. Comcast
4. Coweta-Fayette EMC (reimbursable)
5. Ga. Power – Distribution (reimbursable)
6. Nulink
7. Peachtree City Water and Sewer

SUE Required: ☐ No ☒ YesPublic Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way:

SR 54 Existing width: 140-175ft.

Proposed width: 140-175ft.

SR 74 Existing width: 140 - 205ft.

Proposed width: 140 - 210ft.

Required Right-of-Way anticipated:

☐ None☒ Yes☐ UndeterminedEasements anticipated: ☐ None☒ Temporary☐ Permanent☐ Utility☐ OtherAnticipated total number of impacted parcels: 7Displacements anticipated: Businesses: 0Residences: 0Other: 0Total Displacements: 0Impacts to USACE property anticipated? ☒ No ☐ Yes ☐ Undetermined

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: N/A

Context Sensitive Solutions Proposed: N/A

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:

NEPA: ☒ PCE ☐ CE ☐ EA-FONSI

GEPA*: ☐ Type A ☐ Type B ☐ None

*A GEPA document must be prepared only for state funded projects where the project cost meets or exceeds \$100 million.

Level of Environmental Analysis:

- ☒ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.
- ☐ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:

MS4 Compliance – Is the project located in an MS4 area? ☐ No ☒ Yes

Is Non-MS4 water quality mitigation anticipated? ☒ No ☐ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

- The proposed project is located within Peachtree City. Habitat for protected species does not likely exist due to utility easements, roadway construction, and urban development within the study corridor. Additionally, no waters of the United States are present within the study corridor. An ecological survey would be necessary to confirm the extent, if any, of natural resources.
- Utility easements exist along the corridor. Improvements to the corridor would likely not impact utilities.
- Using Georgia's Natural, Archeological, and Historic GIS (NAHRGIS), it was determined that no historic resources are located within the project corridor however, Section 106 Consultation and a Cultural Resources Survey by certified historian/archaeologist will confirm this.
- Underground storage tanks are not present within the study corridor. However, a BP gas station is located on the north side of SR 54, approximately 390 feet east of the eastern terminus of the proposed project. Phase I and Phase II testing could be required should land disturbing activity or right-of-way acquisition be necessary at the gas station location. No other evidence of hazardous sites/materials were observed.

Air Quality:

Is the project located in an Ozone Non-attainment area?

☐ No

☒ Yes

Carbon Monoxide hotspot analysis: ☐ Required

☒ Not Required

☐ TBD

The proposed project is included in the Atlanta Regional Commission's conforming regional transportation plan, Plan 2040, as AR-106-2021. The project description states that this project is exempt from air quality analysis requirements.

NEPA/GEPA Comments & Information:

Based on the 2013 PCE Process Agreement, the anticipated Environmental Document for the proposed project is a PCE.

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Is Federal Aviation Administration (FAA) coordination anticipated?

☐ No

☒ Yes

Rolling Meadows Airfield and Falcon Field are within 5 miles of the project location.

Project Meetings: Concept Team Meeting was held on June 14, 2017 see Attachment 6a for meeting minutes

Other coordination to date:

Project Activity	Party Responsible for Performing Task(s)
Concept Development	Arcadis U.S., Inc.
Design	GDOT
Right-of-Way Acquisition	GDOT
Utility Coordination (Preconstruction)	GDOT
Utility Relocation (Construction)	Utility Owners
Letting to Contract	GDOT
Construction Supervision	GDOT
Providing Material Pits	N/A
Providing Detours	N/A
Environmental Studies, Documents, & Permits	GDOT
Environmental Mitigation	N/A
Construction Inspection & Materials Testing	GDOT

Project Cost Estimate and Funding Responsibilities:

	PE Activities		ROW	Reimbursable Utilities	CST*	Total Cost
	PE Funding	Section 404 Mitigation				
Funded By	GDOT	N/A	GDOT	GDOT	GDOT	
\$ Amount	\$1,000,000	\$0	\$751,000	\$67,750	\$7,120,086	\$8,938,836
Date of Estimate	1/1/2016	2/5/2018	5/17/2018	10/25/2016	11/1/2017	

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

ALTERNATIVES DISCUSSION

Preferred Alternative: <i>Construct DLT on SR 74</i>			
Estimated Property Impacts:	7	Estimated Total Cost:	\$9,111,597
Estimated ROW Cost:	\$751,000	Estimated CST Time:	1-2 years
<p>Rationale: The overall 2021 AM peak hour intersection delay is expected to decrease by 10 percent from 76.9 sec/veh to 69.0 sec/veh and this alternative increases the level of service of the intersection from F to E. In 2041 AM peak hour intersection delay is expected to reduce by 29.9 percent from 109.7 sec/veh to 76.8 sec/veh with level of service changing from F to E. The overall 2021 PM peak hour intersection delay is expected to decrease by 38.2 percent from 113.5 sec/veh to 70.1 sec/veh and the level of service is improved from F to E. In 2041 PM peak hour intersection delay is expected to reduce by 32.9 percent from 263.9 sec/veh to 176.9 sec/veh.</p> <p>Due to the improvement of operations at the intersection provided by the DLT alternative, it was selected as the preferred alternative</p>			

No-Build Alternative:			
Estimated Property Impacts:	0	Estimated Total Cost:	\$0
Estimated ROW Cost:	\$0	Estimated CST Time:	N/A
<p>Rationale: The No-Build alternative is predicted to see significant increases in delay from 2021 to the 2041 AM and PM peak hours. Overall intersection delay at the expected to increase by 42.65 percent in the AM peak hour, from 76.9 to 109.7 sec/veh, and by 199 percent in the PM peak hour, from 113.5 to 263.9 sec/veh. Therefore, the No-Build alternative does not meet the project purpose of improving intersection operations.</p>			

Alternative 1: <i>Construct Full DLT on SR 54 and SR 74</i>			
Estimated Property Impacts:	5	Estimated Total Cost:	\$21,000,000
Estimated ROW Cost:	\$2,000,000	Estimated CST Time:	~2 years
<p>Rationale: Compared to the preferred alternative, a full displaced left turn (DLT) conversion is anticipated to improve delay in the existing year by 4% in the AM peak period, and 16% in the PM peak period. In the design year, the full DLT is anticipated to improve delay by 1% in both the AM and PM peak hours. Due to the much higher anticipated cost, higher ROW impacts, and minimal improvements over the partial solution, this alternative was not chosen.</p>			

Alternative 2: <i>Multilane Roundabout</i>			
Estimated Property Impacts:	N/A	Estimated Total Cost:	\$4,659,600
Estimated ROW Cost:	\$449,629	Estimated CST Time:	N/A
<p>Rationale: This alternative was eliminated in the ICE Stage 2 analysis. In the design year PM peak hour, all approaches suffer the level of service F and high intersection delay. Compared to the design year no-build PM peak hour, the multilane roundabout's total intersection delay is expected to increase by 73% from 425.4 sec/veh to 738.8 sec/veh. Therefore, this alternative doesn't provide good operational benefits and this alternative was not chosen. See Attachment 6b for further information.</p>			

Additional Comments/ Information:

Consider closing the median opening at West Park Dr.

Consider redesigning the SR 74 SB right turn lane to remove the trap right turn lane condition.

Coordination is needed with PI 0015076 SR 74 Corridor Study - SR 74 from SR 14/US 29 to SR 54.

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical Sections
3. Cost Estimates
4. Traffic Information
 - a. Traffic Analysis
 - b. Traffic Volumes
 - c. Crash Information
5. MS4 Concept Report Checklist
6. Additional Documents
 - a. Concept Team Meeting Minutes
 - b. Intersection Control Evaluation (ICE)
 - c. Traffic Study Synopsis Presented to Statewide Operational Improvement Committee
 - d. Local Lighting Agreement

PROJECT CONCEPT REPORT

ATTACHMENT 1

CONCEPT LAYOUT

P.I. No. 0013726
Fayette County

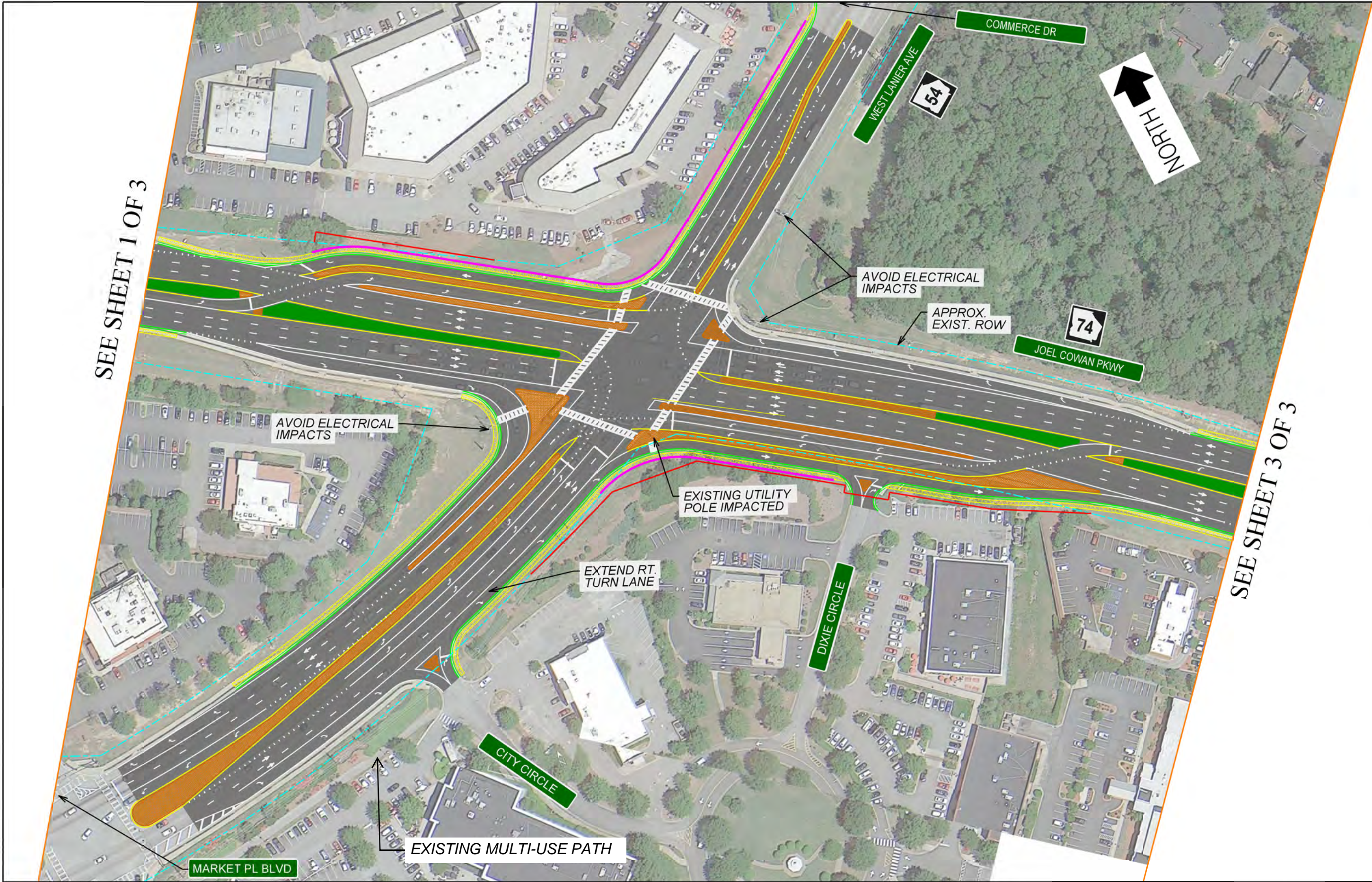


SEE SHEET 2 OF 3

PROPOSED ASPHALT
PROPOSED SIDEWALK AND C&G
PROPOSED RAISED ISLAND OR MEDIAN



STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
JOEL COWAN PKWY (SR 74)
AT WEST LANIER AVE (SR 54)
PI NO. 0013726
SHEET 1 OF 3



SEE SHEET 1 OF 3

SEE SHEET 3 OF 3

STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION	PI NO. 0013726
SCALE IN FEET 0 120 240	
ARCADIS Georgia Department of Transportation	
PROPOSED ASPHALT	PROPOSED SIDEWALK AND C&G
PROPOSED RAISED ISLAND OR MEDIAN	PROPOSED RETAINING WALL
REQUIRED RIGHT OF WAY	

SEE SHEET 2 OF 3



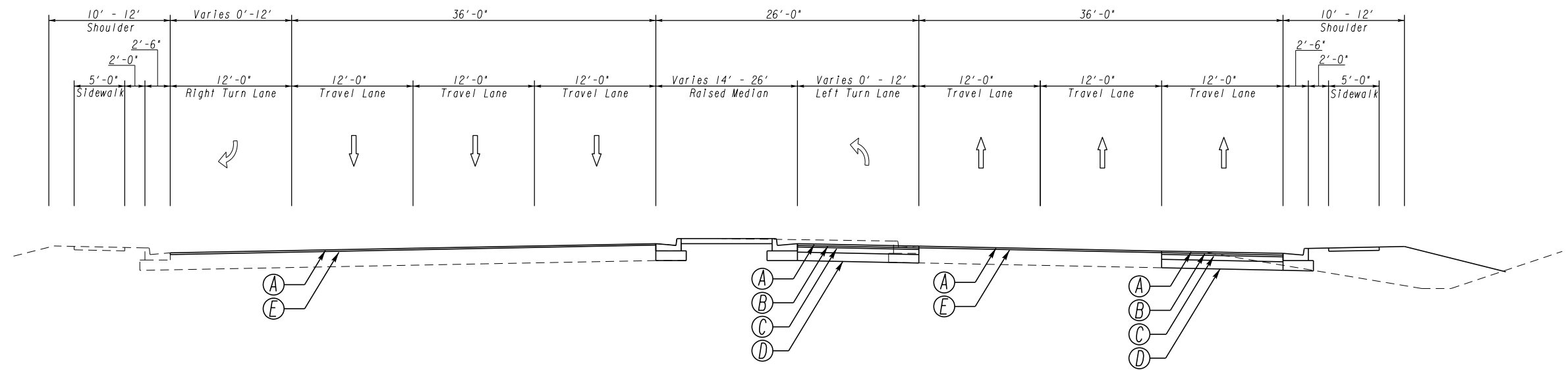
			STATE OF GEORGIA DEPARTMENT OF TRANSPORTATION
			JOEL COWAN PKWY (SR 74) AT WEST LANIER AVE (SR 54)
			PI NO. 0013726 SHEET 3 OF 3

PROJECT CONCEPT REPORT

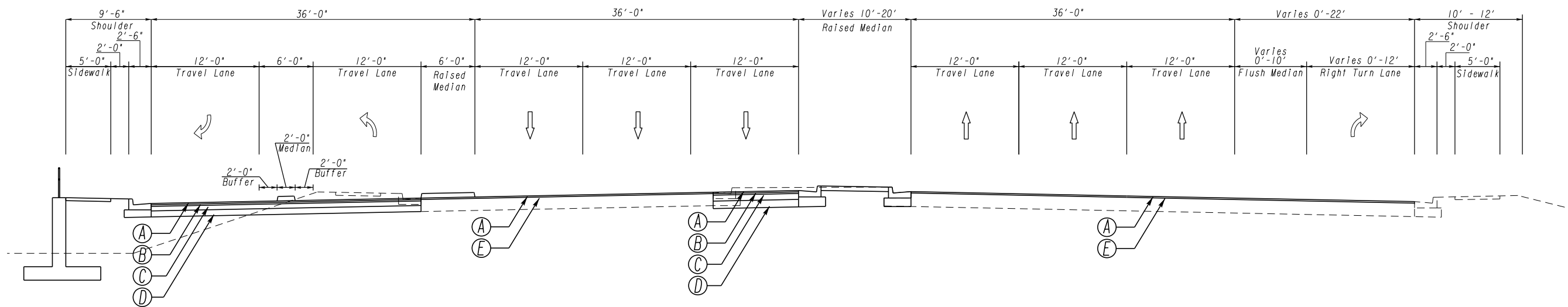
ATTACHMENT 2

TYPICAL SECTIONS

P.I. No. 0013726
Fayette County

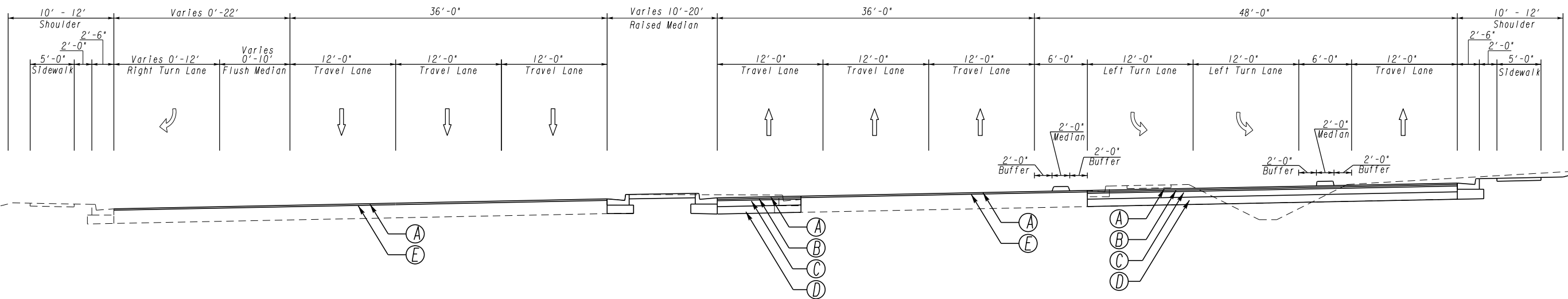


TYPICAL SECTION 1
SR 74/JOEL COWAN PKWY NORTH OF SR 54/W LANIER AVE
FROM WEST PARK DR TO MARKET PL BLVD

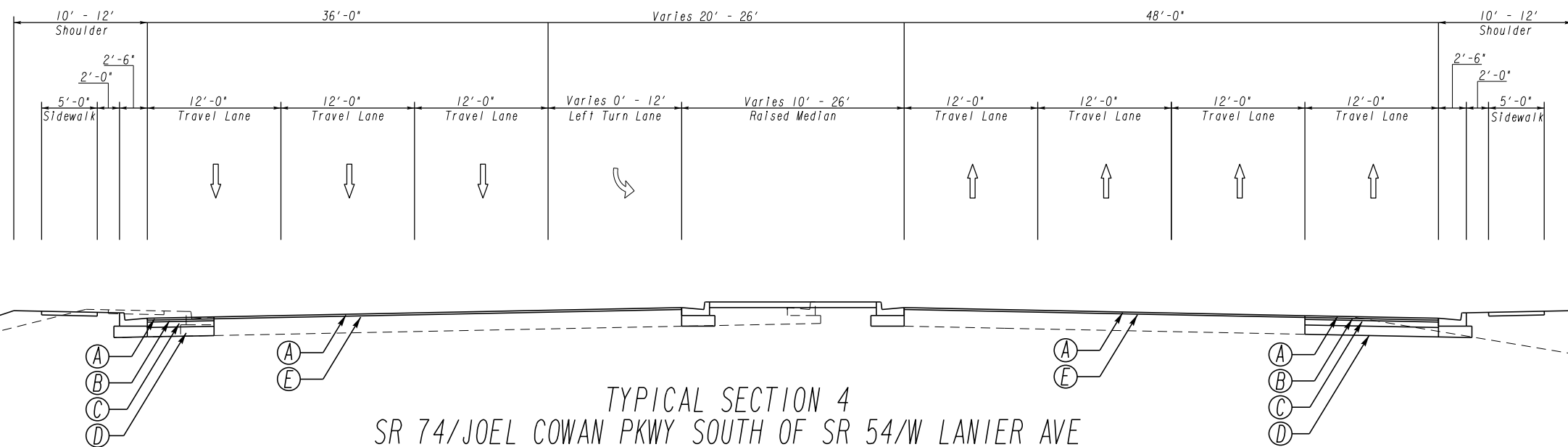


TYPICAL SECTION 2
SR 74/JOEL COWAN PKWY NORTH OF SR 54/W LANIER AVE
FROM MARKET PL BLVD TO SR 54

- Ⓐ 165 LB/SY RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME
- Ⓑ 220 LB/SY RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR GP 2, INCL BITUM MATL & H LIME
- Ⓒ 880 LB/SY RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR GP 2, INCL BITUM MATL & H LIME
- Ⓓ GR AGGR BASE CRS, 10 INCH, INCL MATL
- Ⓔ MILL EXISTING PAVEMENT 1.5" DEPTH

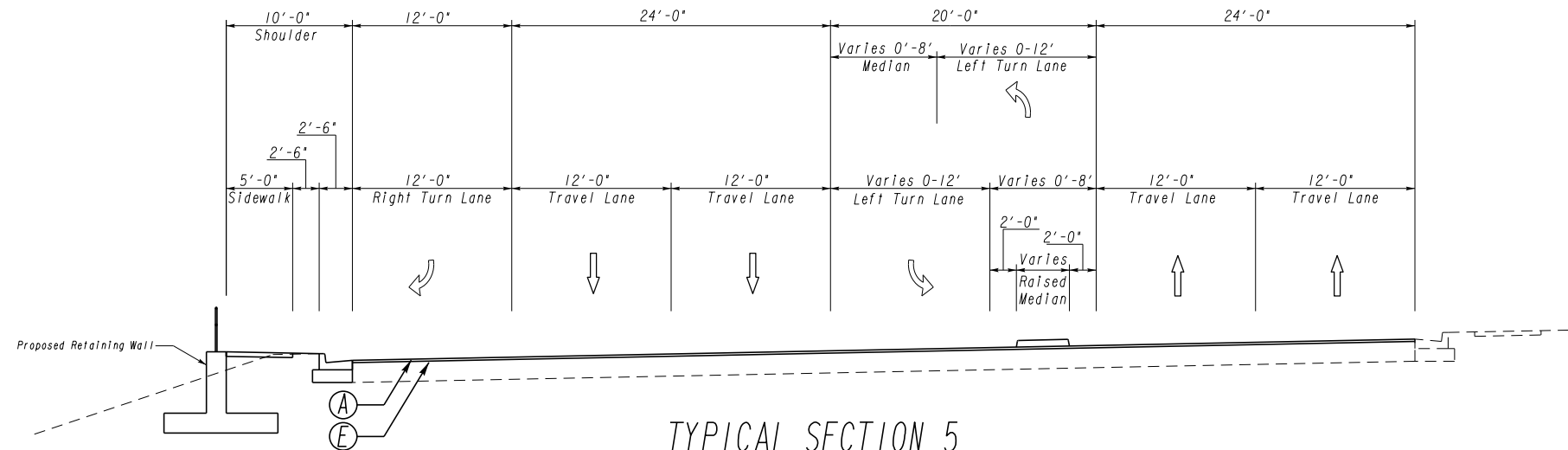


TYPICAL SECTION 3
SR 74/JOEL COWAN PKWY SOUTH OF SR 54/W LANIER AVE
FROM SR 54 TO CLOVER REACH (NORTH)

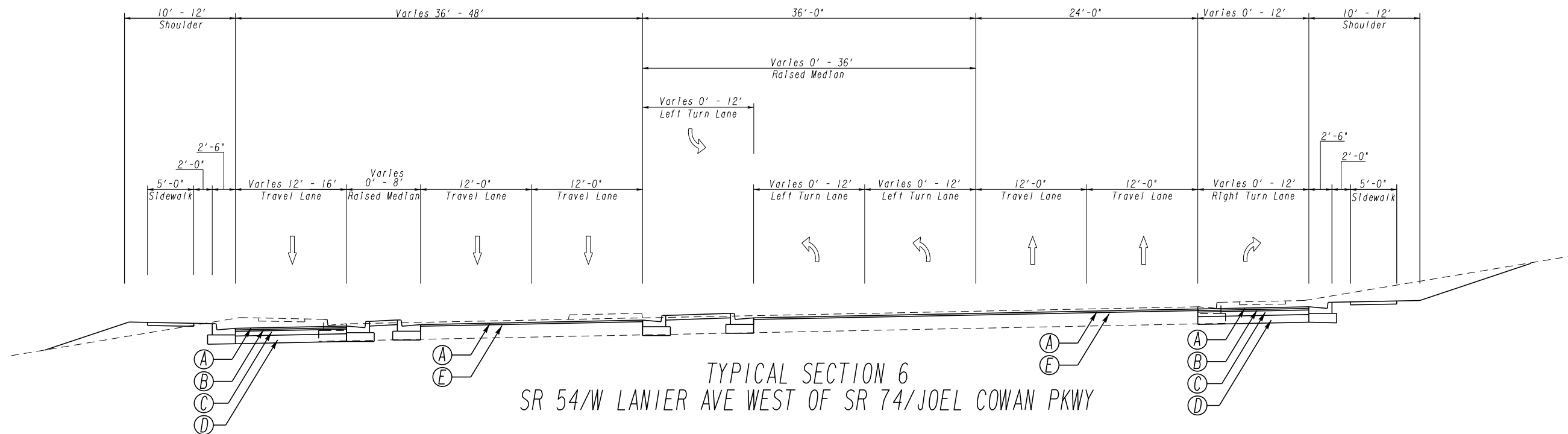


TYPICAL SECTION 4
SR 74/JOEL COWAN PKWY SOUTH OF SR 54/W LANIER AVE
FROM CLOVER REACH (NORTH) TO CLOVER REACH (SOUTH)

- Ⓐ 165 LB/SY RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME
- Ⓑ 220 LB/SY RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR GP 2, INCL BITUM MATL & H LIME
- Ⓒ 880 LB/SY RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR GP 2, INCL BITUM MATL & H LIME
- Ⓓ GR AGGR BASE CRS, 10 INCH, INCL MATL
- Ⓔ MILL EXISTING PAVEMENT 1.5" DEPTH



TYPICAL SECTION 5
SR 54/W LANIER AVE EAST OF SR 74/JOEL COWAN PKWY



TYPICAL SECTION 6
SR 54/W LANIER AVE WEST OF SR 74/JOEL COWAN PKWY

- Ⓐ 165 LB/SY RECYCLED ASPH CONC 12.5 MM SUPERPAVE, GP 2 ONLY, INCL POLYMER-MODIFIED BITUM MATL & H LIME
- Ⓑ 220 LB/SY RECYCLED ASPH CONC 19 MM SUPERPAVE, GP 1 OR GP 2, INCL BITUM MATL & H LIME
- Ⓒ 880 LB/SY RECYCLED ASPH CONC 25 MM SUPERPAVE, GP 1 OR GP 2, INCL BITUM MATL & H LIME
- Ⓓ GR AGGR BASE CRS, 10 INCH, INCL MATL
- Ⓔ MILL EXISTING PAVEMENT 1.5" DEPTH

PROJECT CONCEPT REPORT

ATTACHMENT 3

COST ESTIMATES

P.I. No. 0013726

Fayette County

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. No. **0013726** OFFICE **Traffic Operations**

PROJECT DESCRIPTION

This project proposes to reconstruct the SR 54 at SR 74 intersection as a Continuous Flow Intersection (CFI).

DATE **June 1, 2018**

From: **Kimberly Nesbitt, State Program Delivery Administrator**

To: Lisa L. Myers, State Project Review Engineer
via Email Mailbox: CostEstimatesandUpdates@dot.ga.gov

Subject: **REVISIONS TO PROGRAMMED COSTS**

PROJECT MANAGER **Robert Reid**

MGMT LET DATE

MGMT ROW DATE

PROGRAMMED COSTS (TPro W/OUT INFLATION)

LAST ESTIMATE UPDATE

CONSTRUCTION \$ **6,400,000.00**

DATE **7/8/2015**

RIGHT OF WAY \$ **1,300,000.00**

DATE **7/8/2015**

UTILITIES \$ **300,000.00**

DATE **7/8/2015**

REVISED COST ESTIMATES

CONSTRUCTION* \$ **7,292,846.95**

RIGHT OF WAY \$ **751,000.00**

UTILITIES \$ **67,750.00**

*Cost Contains **20** % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

This project is a reconstruction/rehabilitation project with added capacity. Using the table in the risk based cost estimation memo, a contingency of 20% was chosen.

CONTINGENCY SUMMARY

A. CONSTRUCTION COST ESTIMATE:	\$ 5,644,715.84	Base Estimate From CES	
B. ENGINEERING AND INSPECTION (E & I):	\$ 282,235.79	Base Estimate (A) x	5 %
C. CONTINGENCY:	\$ 1,185,390.33	Base Estimate (A) + E & I (B) x	20 %
		See % Table in "Risk Based Cost Estimation" Memo	
D. TOTAL LIQUID AC ADJUSTMENT:	\$ 180,504.99	Total From Liquid AC Spreadsheet	
E. CONSTRUCTION TOTAL:	\$ 7,292,846.95	(A + B + C + D = E)	

REIMBURSABLE UTILITY COSTS

UTILITY OWNER	REIMBURSABLE COST
Coweta-Fayette EMC	\$ 27,750.00
Georgia Power - Distribution	\$ 40,000.00
TOTAL	\$ 67,750.00

ATTACHMENTS: (File Copy in the Project Cost Estimate Folder)

Detailed Cost Estimate Printout From CES
 Liquid AC Adjustment Spreadsheet
 Preliminary ROW Cost Estimate
 Concept Utility Report

Consultant Validation of Final QC/QA for Construction Cost Estimate Used in This Revision To Programmed Costs

COMPANY NAME:

Arcadis, U.S., Inc.

VALIDATION OF FINAL QC/QA

PRINTED NAME:

Doug Tilit

TITLE:

Vice President

SIGNATURE:

A handwritten signature in black ink, appearing to read "Doug Tilit", is written over a yellow rectangular background.

DATE:

6/1/2018

PROJ. NO.
P.I. NO. 0013726
DATE 6/1/2018

CALL NO. 0/00/2016

INDEX (TYPE)	DATE	INDEX
REG. UNLEADED	May-18	\$ 2.729
DIESEL		\$ 2.980
LIQUID AC		\$ 446.00

Link to AC Index:

<http://www.dot.ga.gov/PS/Materials/AsphaltFuelIndex>

LIQUID AC ADJUSTMENTS

PA=[((APM-APL)/APL)]xTMTxAPL

Asphalt

Price Adjustment (PA)				176482.2	\$	176,482.20
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	713.60		
Monthly Asphalt Cement Price month project let (APL)			\$	446.00		
Total Monthly Tonnage of asphalt cement (TMT)				659.5		

ASPHALT	Tons	%AC	AC ton
Leveling	3500	5.0%	175
12.5 OGFC		5.0%	0
12.5 mm	4300	5.0%	215
9.5 mm SP		5.0%	0
25 mm SP	4310	5.0%	215.5
19 mm SP	1080	5.0%	54
	13190		659.5

BITUMINOUS TACK COAT

Price Adjustment (PA)				\$	4,022.79	\$	4,022.79
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	713.60			
Monthly Asphalt Cement Price month project let (APL)			\$	446.00			
Total Monthly Tonnage of asphalt cement (TMT)				15.03285323			

Bitum Tack

Gals	gals/ton	tons
3500	232.8234	15.0328532

BITUMINOUS TACK COAT (surface treatment)

Price Adjustment (PA)					0	\$	-
Monthly Asphalt Cement Price month placed (APM)	Max. Cap	60%	\$	713.60			
Monthly Asphalt Cement Price month project let (APL)			\$	446.00			
Total Monthly Tonnage of asphalt cement (TMT)				0			

Bitum Tack	SY	Gals/SY	Gals	gals/ton	tons
Single Surf. Trmt.		0.20	0	232.8234	0
Double Surf.Trmt.		0.44	0	232.8234	0
Triple Surf. Trmt		0.71	0	232.8234	0

TOTAL LIQUID AC ADJUSTMENT \$ 180,504.99

STATE HIGHWAY AGENCY

DATE : 10/30/2017

PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0013726
 DESCRIPTION: SR 54 @ SR 74

SPEC YEAR: 13

ITEMS FOR JOB 0013726

LINE	ITEM	ALT	UNITS	DESCRIPTION	QUANTITY	PRICE	AMOUNT
0005	150-1000		LS	TRAFFIC CONTROL - TRAF CNTRL	1.000	500000.00	500000.00
0011	163-0550		EA	CONS & REM INLET SEDIMENT TRAP	50.000	156.17	7808.95
0012	165-0030		LF	MAINT OF TEMP SILT FENCE, TP C	9000.000	0.75	6793.56
0013	165-0105		EA	MAINT OF INLET SEDIMENT TRAP	50.000	49.70	2485.47
0017	171-0030		LF	TEMPORARY SILT FENCE, TYPE C	9000.000	3.46	31193.10
0020	210-0100		LS	GRADING COMPLETE - GRADING	1.000	1000000.00	1000000.00
0025	310-1101		TN	GR AGGR BASE CRS, INCL MATL	6000.000	26.76	160618.74
0030	402-1818		TN	RECYL AC LEVELING, INC PMBM&HL	3500.000	150.00	525000.00
0035	402-4510		TN	RECYL AC 12.5 MM SP, GP2ONLY, INC P-MBM&HL	4300.000	85.29	366775.08
0040	402-3121		TN	RECYL AC 25MM SP, GP1/2, BM&HL	4310.000	76.51	329776.55
0045	402-3190		TN	RECYL AC 19 MM SP, GP 1 OR 2 , INC BM&HL	1080.000	85.71	92575.22
0050	413-0750		GL	TACK COAT	3500.000	5.00	17500.00
0055	432-0208		SY	MILL ASPH CONC PVMT/ 2 DEP	41800.000	3.00	125400.00
0060	441-0104		SY	CONC SIDEWALK, 4 IN	2750.000	43.87	120649.46
0065	441-0108		SY	CONC SIDEWALK, 8 IN	160.000	66.48	10637.29
0070	441-0748		SY	CONC MEDIAN, 6 IN	6600.000	48.77	321888.86
0075	441-6022		LF	CONC CURB & GUTTER, 6X30TP2	6000.000	21.38	128328.24
0080	500-3107		CY	CL A CONC, RET WALL	250.000	510.00	127500.00
0085	500-9999		CY	CL B CONC, BASE OR PVMT WIDEN	50.000	225.21	11260.78
0090	550-1180		LF	STM DR PIPE 18,H 1-10	6000.000	39.00	234055.80
0095	550-2180		LF	SIDE DR PIPE 18,H 1-10	300.000	38.32	11498.64
0100	550-4118		EA	FLARED END SECT 18 IN, SIDE DR	10.000	399.46	3994.69
0105	627-1010		SF	MSE WALL FACE, 10 - 20 FT HT, WALL NO - MSE WALL	12600.000	51.74	651984.98
0110	647-1000		LS	TRAF SIGNAL INSTALLATION NO - TRAF SIGNALS	1.000	400000.00	400000.00
0115	653-0110		EA	THERM PVMT MARK, ARROW, TP 1	50.000	73.80	3690.24
0120	653-0120		EA	THERM PVMT MARK, ARROW, TP 2	65.000	81.47	5295.84
0125	653-1501		LF	THERMO SOLID TRAF ST 5 IN, WHI	18500.000	0.46	8595.84
0130	653-1704		LF	THERM SOLID TRAF STRIPE, 24, WH	300.000	7.67	2301.52
0135	653-1804		LF	THERM SOLID TRAF STRIPE, 8, WH	3000.000	2.26	6803.97
0140	653-3501		GLF	THERMO SKIP TRAF ST, 5 IN, WHI	15000.000	0.30	4553.10
0145	653-6004		SY	THERM TRAF STRIPING, WHITE	60.000	5.03	301.91
0150	654-1003		EA	RAISED PVMT MARKERS TP 3	500.000	3.94	1974.36
0155	668-1100		EA	CATCH BASIN, GP 1	50.000	2510.33	125516.69
0160	700-6001		LS	GRASSING - COMPLETE	1.000	4000.00	4000.00
0195	603-1012		SY	STN PLAIN RIP RAP, 12 IN	300.000	90.00	27000.00
0200	999-9999		LS	MS4	1.000	102990.00	102990.00
0205	550-4436		EA	FLARED END SECT 36 IN, SLP DR	1.000	1500.00	1500.00
0210	550-1361		LF	STM DR PIPE 36,H 10-15	30.000	110.00	3300.00
0215	681-3600		EA	LIGHTING STD, SPCL DES	10.000	5000.00	50000.00

STATE HIGHWAY AGENCY

DATE : 10/30/2017

PAGE : 2

ITEM TOTAL	5535548.88
INFLATED ITEM TOTAL	5535548.88

TOTALS FOR JOB 0013726

ESTIMATED COST:	5535548.88
CE&I (5.0):	276777.44
CONTINGENCY PERCENT (20.0):	1162465.26
TOTAL LIQUID AC ADJUSTMENT :	145294.38
ESTIMATED TOTAL:	7120085.97

Concept Utility Report

Project Number: 0013726District: 3County: FayettePrepared by: Gene McKissickP.I. # 0013726Date: 10/25/2016Project Description: SR 54 @ SR 74 Continuous Flow Intersection (CFI)

The information provided herein has been gathered from Georgia811 and/or field visits and serves as an estimate. Nothing contained in this report is to be used as a substitute for 1st Submission or SUE.

Are SUE services recommended? Yes Level: ☐ A ☒ B ☐ C ☐ DPublic Interest Determination (PID): ☐ Automatic ☐ Mandatory ☐ Consideration☐ No Use ☒ Exempt

Is a separate utility funding phase recommended? _____

Existing Facilities:

UTILITY	NON-REIMBURSABLE COST	REIMBURSABLE COST
Atlanta Gas Light	\$30,000.00	
AT&T	\$16,000.00	
Comcast	\$10,000.00	
Coweta-Fayette EMC		\$27,750.00
Ga. Power – Distribution		\$40,000.00
Nulink	\$10,000.00	
Peachtree City Water and Sewer	\$165,000.00	
TOTAL	\$231,000.00	\$67,750.00

Potential Project (Schedule/Budget) Impacts: _____

Capital Improvement Projects (Utilities) Anticipated in the Area: None

Project Specific Recommendations for Avoidance/Mitigation: _____

Right of Way Coordination: _____

Environmental Coordination: _____

Additional Remarks: _____

Fisher, Chuck

From: Johnson, Allen <AlleJohnson@dot.ga.gov>
Sent: Monday, February 5, 2018 9:04 AM
To: Fisher, Chuck
Cc: Peace, Jody
Subject: FW: PI 0013726, Fayette County - Estimated Mitigation Cost for Concept Report

Follow Up Flag: Follow up
Flag Status: Flagged

Allen D. Johnson, PE, PMP
Project Manager

GDOT | OFFICE OF PROGRAM DELIVERY
GRESHAM, SMITH AND PARTNERS
[P] 404-865-3478
[M] 678-977-0376

From: Westberry, Lisa
Sent: Monday, February 05, 2018 9:02 AM
To: Johnson, Allen
Cc: Beba, Suncica
Subject: PI 0013726, Fayette County - Estimated Mitigation Cost for Concept Report

Allen,

As requested, the estimated mitigation costs for the subject project is \$0.00. This was based on a review of aerial photography, NWI mapping, and NRCS soil surveys and not an actual field verification. The total cost of mitigation credits could remain the same or be higher once the ecology field survey is complete.

If you should have any questions or need any additional information, please do not hesitate to contact me.

Thank you,

Lisa Westberry | Special Projects Coordinator | **Office of Environmental Services** | 600 West Peachtree Street, NW | **Atlanta, GA 30308** | 404-631-1772

Roadway fatalities in Georgia are up 33% in two years. That's an average of four deaths every single day! Many of these deaths are preventable and related to driver behavior: distracted or impaired driving, driving too fast for conditions, and/or failure to wear a seatbelt. Pledge to **DRIVE ALERT ARRIVE ALIVE**. Buckle up – Stay off the phone and mobile

devices – Drive alert. Visit www.dot.ga.gov/DAAA. #ArriveAliveGA

GEORGIA DEPARTMENT OF TRANSPORTATION
PRELIMINARY ROW COST ESTIMATE SUMMARY

Date: 5/17/2018
Revised:

Project: SR 54 @ SR 74 CFI
County: Fayette
PI: 13726

Description: SR 54 @ SR 74 - CFI
Project Termini: 0.8 Miles

Parcels: 7

Existing ROW: Varies
Required ROW: Varies

Land and Improvements \$536,587.50

Proximity Damage	\$0.00
Consequential Damage	\$14,000.00
Cost to Cures	\$0.00
Trade Fixtures	\$28,000.00
Improvements	\$47,600.00

Valuation Services \$50,312.50

Legal Services \$79,725.00

Relocation \$15,750.00

Demolition \$4,500.00

Administrative \$64,000.00

TOTAL ESTIMATED COSTS \$750,875.00

TOTAL ESTIMATED COSTS (ROUNDED) \$751,000.00

Preparation Credits	Hours	Signature

Prepared By:

Approved By:

Wesley K. Brock
Wesley K. Brock
Valerie [Signature]

CG#: 5147

CG#:

5/19/18

6/1/18

6/1/18

NOTE: No Market Appreciation is included in this Preliminary Cost Estimate

PROJECT CONCEPT REPORT

ATTACHMENT 4

TRAFFIC INFORMATION

P.I. No. 0013726
Fayette County

PROJECT CONCEPT REPORT

ATTACHMENT 4

A. TRAFFIC ANALYSIS

P.I. No. 0013726
Fayette County

Operational Improvement Potential Project

SR 54 at SR 74

GDOT District:	District 3	County:	Fayette
Project Type:	Intersection Improvement	City:	Peachtree City

Description of the Problem:

- It was observed that:
- SR 74 northbound left traffic to SR 54 westbound backs up on the SR 74 mainline.
 - SR 74 southbound right traffic to SR 54 westbound backs up on the SR 74 mainline.
 - SR 54 eastbound left traffic to SR 74 northbound backs up on the SR 54 mainline.1st

Proposed Improvement:

Evaluate the need for a Continuous Flow Intersection (CFI) at the Intersection of SR 54 and SR 74. Also, evaluate the operations by providing exclusive lane for SR 74 southbound right traffic to SR 54 westbound.

Right of Way acquisition required?

☐ None

☐ Minimal

☒ Yes, 4+ parcels

Initial Environmental Concerns?

☐ Yes

If yes, describe:

☒ No

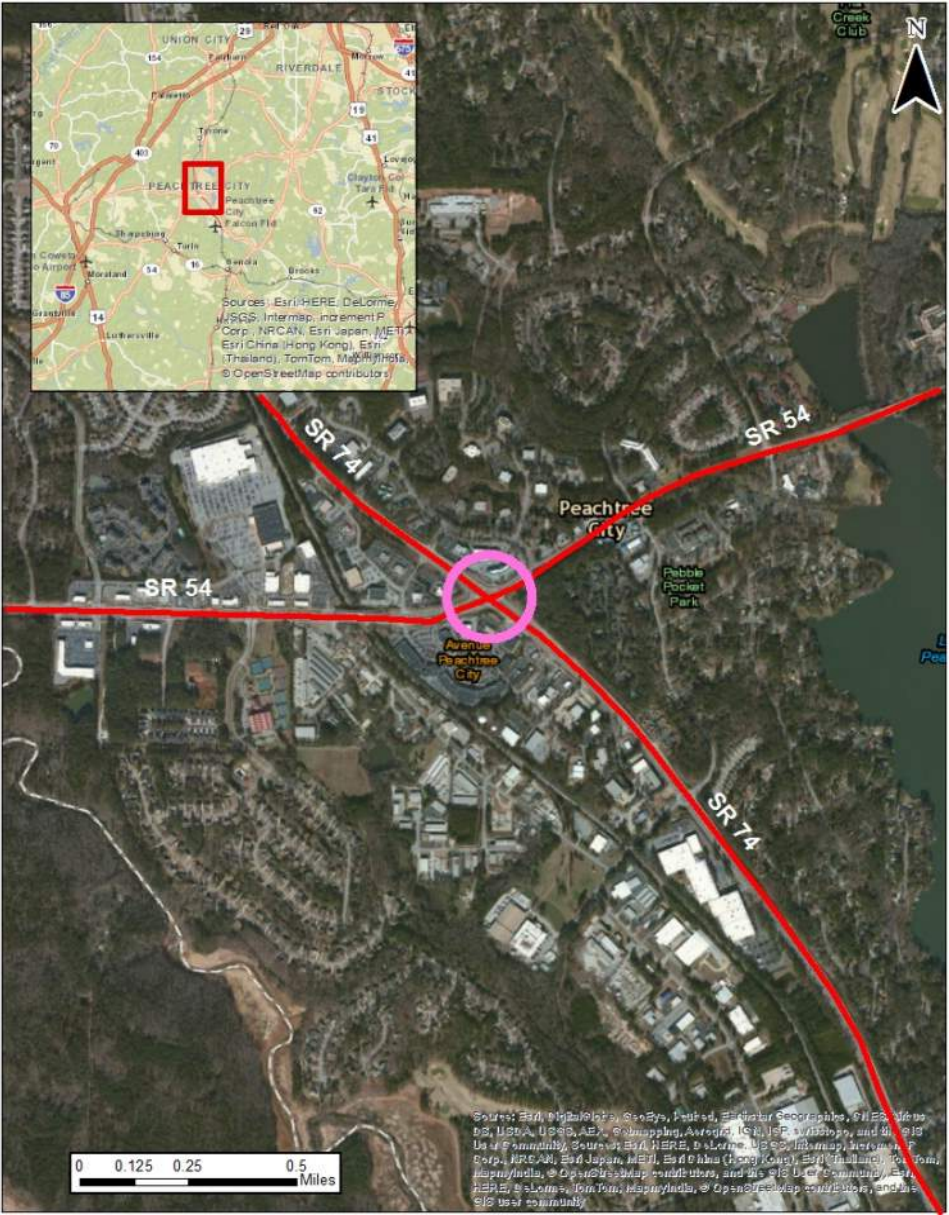
Other programmed projects in the area:

Traffic Volume	Year	AADT
Existing Conditions	2017	See Attached Sheets for AM/PM Peak Hour Volumes
Open Year	2021	See Attached Sheets
Design Year	2041	See Attached Sheets
Pedestrian Activity?		Yes

Anticipated Benefits Table:
(LOS, Delay Reduction, Modeling output, etc.)

Overall Intersection Delay (Sec/Veh) and Level of Service – (based on SimTraffic Analysis)								
Intersection	AM				PM			
	No-Build (2021)	Build (2021)	No-Build (2041)	Build (2041)	No-Build (2021)	Open Build (2021)	No-Build (2041)	Build (2041)
SR 54 at SR 74 intersection	76.9 LOS F	69.0 LOS E	109.7 LOS F	76.8 LOS E	113.5 LOS F	70.1 LOS E	263.9 LOS F	176.9 LOS F
% Change in Delay	-10.27%		-29.9%		-38.24		-32.96%	

Location: (Attach Map, Image or Sketch):



Proposed Improvement: (Attach Map, Image or Sketch):

- See Attached Sheets

GDOT Benefit-Cost Calculator

Project Information

ID 0013726
Description SR 54 at SR 74

Cost Estimate

Date of estimate 6/1/2018
Preliminary Engineering \$1,000,000
Reimbursable Utility \$ 67,750
Right-of-Way \$ 751,000
Construction \$7,292,847

Total \$ 9,111,597

Source of traffic data

Design traffic provided by PE consultant; Analysis in Sim Traffic 8;
Network analysis of 2 hour peak AM and 2 hour peak PM periods

Without project (Nobuild)	Open Year				Design Year			
	2021				2041			
	AM		PM		AM		PM	
	Number of Vehicles	Delay per vehicle (s)	Number of Vehicles	Delay per vehicle (s)	Number of Vehicles	Delay per vehicle (s)	Number of Vehicles	Delay per vehicle (s)
Vehicle Served	4,950	76.9	5,475	113.5	6,055	109.7	6,705	263.9
Vehicle Denied								
Total Delay (hr)	105.7		172.6		184.5		491.5	

With project (Build)	Open Year				Design Year			
	2021				2041			
	AM		PM		AM		PM	
	Number of Vehicles	Delay per vehicle (s)	Number of Vehicles	Delay per vehicle (s)	Number of Vehicles	Delay per vehicle (s)	Number of Vehicles	Delay per vehicle (s)
Vehicle Served	4,950	69.0	5,475	70.1	6,055	76.8	6,705	176.9
Vehicle Denied								
Total Delay (hr)	94.9		106.6		129.2		329.5	

F: Annual number of collisions involving fatalities during study period

I: Average annual number of collisions involving injured people for the period of the study

P: Average annual number of collisions involving only property damage for the period of the study

R: Reduction of fatal and injury collisions by type (from Table A - Appendix E)

r: Crash modification factor for fatal and injury collisions

Rp: Reduction of property damage only collisions by type (from Table A - Appendix E)

rp: Crash modification factor for property damage only collisions

Pc: Average cost, in thousands of \$, per property damage only collision

Q: Weighted cost, in thousands of \$, of fatal and injury collisions

Ic: Average cost per injury in thousands of \$

Fc: Average cost per fatality in thousands of \$

Ek: Capital recovery factor based on countermeasure life (from Table B - Appendix E)

Ci: Estimated initial cost of the countermeasure (cost of the improvement including r/w) in thousands of \$

Cm: Estimated annual maintenance and operating cost of the countermeasure in thousands of \$

Parameters	Default	Override	Used	
Open year	2021	2021	2021	====> Operational Design Life = 20 Years
Design year	2041	2041	2041	
Discount rate	7%		7%	
AM peak period (hr)	2	2	2	
PM peak period (hr)	3	2	2	
Value of auto travel (\$/hr)	13.75		13.75	
Value of truck travel (\$/hr)	72.65		72.65	
Percent trucks	12%	3.0%	3.0%	
Fatality Cost (Fc)	\$9,100,000		\$9,100,000	
Injury Cost (Ic)	\$955,500		\$955,500	
Property Damage Cost (Pc)	\$27,300		\$27,300	
Annual Maintenance/Operating Cost	\$20,000		\$20,000	
Operational Benefit Factor	100%		100%	====> Safety Benefit Factor : 0%

Operational Benefits

Costs	\$	9,111,597
Open Year (2021) Auto Delay Costs		
Nobuild	\$	1,856,260
Build	\$	1,343,656
Auto delay savings	\$	512,605
Open Year (2021) Truck Delay Costs		
Nobuild	\$	303,334
Build	\$	219,569
Truck delay savings	\$	83,765
Open Year (2021) Benefits		
	\$	596,370
Design Year (2041) Auto Delay Costs		
Nobuild	\$	4,508,229
Build	\$	3,058,619
Auto delay savings	\$	1,449,609
Design Year (2041) Truck Delay Costs		
Nobuild	\$	736,696
Build	\$	499,813
Truck delay savings	\$	236,883
Design Year (2041) Benefits		
	\$	1,686,492
Design Life Benefits		
	\$	22,828,621
Design Life Benefit-Cost Ratio		
		2.51

Safety Benefits

Type of Safety Countermeasure	Ek	R	r	Rp	rp

Description	Symbol	Value
Reduction Factor (F)	R	0
Reduction Factor (PD)	Rp	0
Capital Recovery Factor	Ek	0
Initial Improvement Co	Ci	#####

Accident Data	Symbol	Value
PDO	P	
Fatalities	F	
Injuries	I	

Weighted cost of fatal and injury collisions

Q = \$ -

Annual Benefit: \$ -

Annual Cost: \$ -

Annual B/C Ratio: N/A

Design Life Benefit

B = \$ -

Design Life Cost

C = \$ -

Design Life Benefit/Cost Ratio

B/C = N/A

Total Project Benefit

Design Life Operational Benefit	\$22,828,621	Weight= 100%
Design Life Safety Benefit	\$0	Weight= 0%
Total Weighted Benefit	\$22,828,621	
Design Life Operational Cost	\$9,111,597	Weight= 100%
Design Life Safety Cost	\$0	Weight= 0%
Total Weighted Cost	\$9,111,597	
Project Benefit-Cost Ratio	2.51	

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1
Total Del/Veh (s)	8.4	10.3	50.6	36.0	25.2

6: SR 54 Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.2	2.7	45.7	20.8

7: SR 74 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0
Total Del/Veh (s)	3.6	12.4	8.5	9.5

8: SR 54 Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.9	22.4	55.5	14.4

9: SR 74 Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	20.3	2.2	9.4	6.7

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	69.0

Open Year (2021) AM Peak Queuing and Performance Report
2021 Build_AM

07/14/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	T	L	T	T	T	T	T	R	T
Maximum Queue (ft)	62	44	70	49	45	79	59	282	271	323	258	273
Average Queue (ft)	23	25	30	25	27	29	26	205	204	207	145	186
95th Queue (ft)	41	39	45	36	39	54	49	257	254	273	218	253
Link Distance (ft)	20	20	20	20	23	23	23	875	875	875		489
Upstream Blk Time (%)	49	50	42	39	56	32	29					
Queuing Penalty (veh)	183	187	155	147	148	84	77					
Storage Bay Dist (ft)											545	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SR 74 & SR 54

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	257	246	288
Average Queue (ft)	189	179	160
95th Queue (ft)	243	235	269
Link Distance (ft)	489	489	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			315
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: SR 54

Movement	EB	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	T	T	T	T	L	L
Maximum Queue (ft)	221	223	398	438	25	55	253	283
Average Queue (ft)	139	152	253	259	6	48	158	173
95th Queue (ft)	205	219	354	359	23	58	232	255
Link Distance (ft)	529	529	529	529	20	20		952
Upstream Blk Time (%)					5	27		
Queuing Penalty (veh)					16	90		
Storage Bay Dist (ft)							300	
Storage Blk Time (%)				0				0
Queuing Penalty (veh)				1				0

Open Year (2021) AM Peak Queuing and Performance Report
2021 Build_AM

07/14/2017

Intersection: 7: SR 74

Movement	NB	NB	SB	SB	SB
Directions Served	L	T	T	T	T
Maximum Queue (ft)	271	319	114	161	116
Average Queue (ft)	153	11	53	62	37
95th Queue (ft)	259	105	106	146	97
Link Distance (ft)		8914	875	875	875
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	2				
Queuing Penalty (veh)	5				

Intersection: 8: SR 54

Movement	EB	EB	WB	WB	WB	SB
Directions Served	T	T	T	T	T	L
Maximum Queue (ft)	26	72	288	309	268	178
Average Queue (ft)	2	64	131	127	130	114
95th Queue (ft)	14	71	237	212	207	180
Link Distance (ft)	23	23	610	610	610	574
Upstream Blk Time (%)	1	73				
Queuing Penalty (veh)	8	453				
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: SR 74

Movement	WB	NB	SB
Directions Served	R	T	L
Maximum Queue (ft)	156	28	172
Average Queue (ft)	71	1	79
95th Queue (ft)	137	9	143
Link Distance (ft)	574	489	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			250
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: Bend

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	52	22
Average Queue (ft)	2	1
95th Queue (ft)	17	7
Link Distance (ft)	529	529
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1554

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1
Total Del/Veh (s)	9.9	8.0	39.2	29.3	20.0

6: SR 54 Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	30.4	2.1	56.0	21.0

7: SR 74 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0
Total Del/Veh (s)	3.4	15.3	6.4	10.4

8: SR 54 Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.3	33.7	69.4	24.8

9: SR 74 Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.1
Total Del/Veh (s)	7.9	5.5	10.8	8.1

Total Network Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	70.1

Open Year (2021) PM Peak Queuing and Performance Report
2021 Build_PM

07/14/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	T	L	T	T	T	T	T	R	T
Maximum Queue (ft)	44	49	50	30	45	45	79	236	222	204	278	236
Average Queue (ft)	23	24	28	25	25	32	32	140	147	135	128	145
95th Queue (ft)	35	37	41	32	35	43	51	244	228	212	218	230
Link Distance (ft)	20	20	20	20	23	23	23	875	875	875		489
Upstream Blk Time (%)	57	63	43	44	48	48	49					
Queuing Penalty (veh)	196	215	149	153	210	210	215					
Storage Bay Dist (ft)											545	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SR 74 & SR 54

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	256	502	362
Average Queue (ft)	157	166	221
95th Queue (ft)	254	305	356
Link Distance (ft)	489	489	
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		1	
Storage Bay Dist (ft)			315
Storage Blk Time (%)			1
Queuing Penalty (veh)			2

Intersection: 6: SR 54

Movement	EB	EB	EB	EB	WB	WB	NB	NB
Directions Served	T	T	T	T	T	T	L	L
Maximum Queue (ft)	285	268	375	374	25	73	324	373
Average Queue (ft)	177	182	229	243	4	54	210	226
95th Queue (ft)	262	267	335	353	17	68	298	317
Link Distance (ft)	529	529	529	529	20	20		952
Upstream Blk Time (%)					2	30		
Queuing Penalty (veh)					10	171		
Storage Bay Dist (ft)							300	
Storage Blk Time (%)							0	1
Queuing Penalty (veh)							0	2

Open Year (2021) PM Peak Queuing and Performance Report
2021 Build_PM

07/14/2017

Intersection: 7: SR 74

Movement	NB	NB	SB	SB	SB
Directions Served	L	T	T	T	T
Maximum Queue (ft)	275	438	118	135	95
Average Queue (ft)	202	94	54	76	44
95th Queue (ft)	308	354	99	120	93
Link Distance (ft)		8914	875	875	875
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	7				
Queuing Penalty (veh)	19				

Intersection: 8: SR 54

Movement	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	T	T	T	R	L
Maximum Queue (ft)	26	86	311	460	503	325	264
Average Queue (ft)	4	65	140	325	342	11	188
95th Queue (ft)	20	75	255	432	459	107	269
Link Distance (ft)	23	23	610	610	610		574
Upstream Blk Time (%)	3	65					
Queuing Penalty (veh)	15	357					
Storage Bay Dist (ft)						300	
Storage Blk Time (%)					7		
Queuing Penalty (veh)					8		

Intersection: 9: SR 74

Movement	WB	NB	NB	NB	SB	SB
Directions Served	R	T	T	T	L	T
Maximum Queue (ft)	136	225	145	105	220	50
Average Queue (ft)	23	117	44	9	121	2
95th Queue (ft)	82	211	129	48	205	17
Link Distance (ft)	574	489	489	489		8181
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)					250	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 10: Bend

Movement	WB	WB	WB
Directions Served	T	T	T
Maximum Queue (ft)	132	285	270
Average Queue (ft)	39	82	16
95th Queue (ft)	116	200	107
Link Distance (ft)	529	529	529
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 12: Bend

Movement	WB	B10	B10	B10
Directions Served	T	T	T	T
Maximum Queue (ft)	1549	132	285	270
Average Queue (ft)	52	39	82	16
95th Queue (ft)	511	116	200	107
Link Distance (ft)	1669	529	529	529
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 1935

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	72.5	53.7	53.1	40.9	57.9

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	76.9

Open Year (2021) AM Peak Queuing and Performance Report
2021 No-Build_AM

07/14/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	306	360	766	768	260	209	359	341	74	314	325	201
Average Queue (ft)	169	236	485	504	195	154	207	194	10	178	186	132
95th Queue (ft)	257	391	785	801	352	238	327	305	42	282	278	200
Link Distance (ft)			13758	13758			12236	12236				9754
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	260	260			210	160			395	375	375	
Storage Blk Time (%)	1	1	25	33	1	10	13					
Queuing Penalty (veh)	3	6	108	171	6	29	23					

Intersection: 1: SR 74 & SR 54

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	T	T	T	R
Maximum Queue (ft)	220	232	228	153	284	280	228	324
Average Queue (ft)	155	151	44	63	151	163	144	104
95th Queue (ft)	214	211	168	125	219	241	218	287
Link Distance (ft)	9754	9754			8702	8702	8702	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			545	350				315
Storage Blk Time (%)								0
Queuing Penalty (veh)								0

Network Summary

Network wide Queuing Penalty: 348

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	68.3	134.1	133.1	53.2	94.4

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	113.5

Open Year (2021) PM Peak Queuing and Performance Report
2021 No-Build_PM

07/13/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	309	359	660	688	260	210	1385	1386	445	424	475	1245
Average Queue (ft)	229	269	347	311	158	194	755	771	163	376	422	555
95th Queue (ft)	341	397	568	528	301	252	1317	1333	515	495	560	1202
Link Distance (ft)			13758	13758			12236	12236				9754
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	260	260			210	160			395	375	375	
Storage Blk Time (%)	12	19	7	17		40	60	42		45	55	
Queuing Penalty (veh)	53	88	34	68		229	111	47		102	125	

Intersection: 1: SR 74 & SR 54

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	T	T	T	R
Maximum Queue (ft)	1034	356	197	246	248	297	699	365
Average Queue (ft)	205	177	18	130	179	186	379	341
95th Queue (ft)	472	267	110	210	241	254	658	396
Link Distance (ft)	9754	9754			8702	8702	8702	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			545	350				315
Storage Blk Time (%)						0	29	
Queuing Penalty (veh)						1	69	

Network Summary

Network wide Queuing Penalty: 928

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1
Total Del/Veh (s)	6.7	9.4	53.4	41.1	26.0

6: SR 54 Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	25.3	2.1	74.2	23.2

7: SR 74 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0
Total Del/Veh (s)	3.9	12.0	6.1	8.6

8: SR 54 Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.1	27.3	67.1	16.8

9: SR 74 Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	26.8	3.1	10.8	7.9

Total Network Performance

Denied Del/Veh (s)			0.4	
Total Del/Veh (s)			76.8	

Design Year (2041) AM Peak Queuing and Performance Report
2041 Build_AM

07/14/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	T	L	T	T	T	T	T	R	T
Maximum Queue (ft)	38	35	72	29	50	37	34	359	367	367	339	396
Average Queue (ft)	21	21	34	25	23	31	29	250	261	265	192	227
95th Queue (ft)	29	27	59	32	32	42	37	337	344	352	318	302
Link Distance (ft)	20	20	20	20	23	23	23	875	875	875		489
Upstream Blk Time (%)	49	52	41	40	53	43	44					
Queuing Penalty (veh)	225	236	187	182	169	137	140					
Storage Bay Dist (ft)											545	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SR 74 & SR 54

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	408	416	365
Average Queue (ft)	233	227	148
95th Queue (ft)	314	322	266
Link Distance (ft)	489	489	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			315
Storage Blk Time (%)		2	
Queuing Penalty (veh)		9	

Intersection: 6: SR 54

Movement	EB	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	T	T	R	T	T	T	L	L
Maximum Queue (ft)	324	327	523	567	424	25	25	70	324	674
Average Queue (ft)	195	206	317	329	70	3	1	50	206	250
95th Queue (ft)	287	299	469	466	328	17	11	60	308	485
Link Distance (ft)	529	529	529	529		20	20	20		952
Upstream Blk Time (%)			0	0		2	1	24		
Queuing Penalty (veh)			0	0		8	4	96		
Storage Bay Dist (ft)					400				300	
Storage Blk Time (%)				1	0				3	6
Queuing Penalty (veh)				8	0				7	12

Design Year (2041) AM Peak Queuing and Performance Report
2041 Build_AM

07/14/2017

Intersection: 7: SR 74

Movement	NB	NB	SB	SB	SB
Directions Served	L	T	T	T	T
Maximum Queue (ft)	274	351	96	118	116
Average Queue (ft)	168	12	41	61	39
95th Queue (ft)	278	116	88	136	96
Link Distance (ft)		8914	875	875	875
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250				
Storage Blk Time (%)	1				
Queuing Penalty (veh)	5				

Intersection: 8: SR 54

Movement	EB	EB	WB	WB	WB	WB	SB
Directions Served	T	T	T	T	T	R	L
Maximum Queue (ft)	37	86	338	377	403	325	264
Average Queue (ft)	8	67	162	190	190	32	157
95th Queue (ft)	29	78	291	304	322	189	214
Link Distance (ft)	23	23	610	610	610		574
Upstream Blk Time (%)	1	72					
Queuing Penalty (veh)	10	546					
Storage Bay Dist (ft)						300	
Storage Blk Time (%)					1	0	
Queuing Penalty (veh)					2	0	

Intersection: 9: SR 74

Movement	WB	NB	NB	NB	SB
Directions Served	R	T	T	T	L
Maximum Queue (ft)	223	52	77	101	204
Average Queue (ft)	86	8	17	3	117
95th Queue (ft)	172	32	59	33	192
Link Distance (ft)	574	489	489	489	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				250	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 10: Bend

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	50	164
Average Queue (ft)	2	16
95th Queue (ft)	17	82
Link Distance (ft)	529	529
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 11: Bend

Movement	EB
Directions Served	T
Maximum Queue (ft)	57
Average Queue (ft)	2
95th Queue (ft)	19
Link Distance (ft)	610
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 1983

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.1
Total Del/Veh (s)	9.5	10.9	49.6	37.7	29.7

6: SR 54 Performance by approach

Approach	EB	WB	NB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	33.0	2.5	71.7	24.1

7: SR 74 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.1
Total Del/Veh (s)	2.8	10.4	6.4	8.2

8: SR 54 Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.3	98.3	76.9	62.7

9: SR 74 Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.0	0.0	0.1	0.0
Total Del/Veh (s)	184.3	5.1	69.3	55.4

Total Network Performance

Approach	WB	NB	SB	All
Denied Del/Veh (s)			0.2	
Total Del/Veh (s)			176.9	

Design Year (2041) PM Peak Queuing and Performance Report
2041 Build_PM

07/13/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	T	L	T	T	T	T	T	R	T
Maximum Queue (ft)	39	58	41	30	39	76	33	456	479	482	191	408
Average Queue (ft)	20	29	26	25	24	32	26	352	365	364	94	265
95th Queue (ft)	26	49	41	32	31	54	38	437	467	458	178	362
Link Distance (ft)	20	20	20	20	23	23	23	875	875	875		489
Upstream Blk Time (%)	58	59	38	42	63	36	34					
Queuing Penalty (veh)	195	201	127	143	228	132	122					
Storage Bay Dist (ft)											545	
Storage Blk Time (%)												
Queuing Penalty (veh)												

Intersection: 1: SR 74 & SR 54

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	440	415	365
Average Queue (ft)	299	306	220
95th Queue (ft)	405	401	367
Link Distance (ft)	489	489	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			315
Storage Blk Time (%)		3	1
Queuing Penalty (veh)		15	3

Intersection: 6: SR 54

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	T	T	T	T	T	L	L
Maximum Queue (ft)	363	377	340	287	25	25	52	311	292
Average Queue (ft)	199	199	213	223	1	2	49	113	122
95th Queue (ft)	311	312	295	298	8	12	57	208	216
Link Distance (ft)	529	529	529	529	20	20	20		952
Upstream Blk Time (%)					0	0	27		
Queuing Penalty (veh)					2	0	124		
Storage Bay Dist (ft)								300	
Storage Blk Time (%)								0	0
Queuing Penalty (veh)								0	0

Design Year (2041) PM Peak Queuing and Performance Report
2041 Build_PM

07/13/2017

Intersection: 7: SR 74

Movement	NB	SB	SB	SB
Directions Served	L	T	T	T
Maximum Queue (ft)	255	92	134	94
Average Queue (ft)	98	42	60	40
95th Queue (ft)	181	72	115	75
Link Distance (ft)		875	875	875
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250			
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 8: SR 54

Movement	EB	EB	WB	WB	WB	WB	B11	B11	SB
Directions Served	T	T	T	T	T	R	T	T	L
Maximum Queue (ft)	26	67	287	682	706	325	5962	6000	592
Average Queue (ft)	6	63	143	327	662	318	2434	2490	574
95th Queue (ft)	23	71	264	602	802	358	5447	5441	600
Link Distance (ft)	23	23	610	610	610		11539	11539	574
Upstream Blk Time (%)	3	64		1	77				30
Queuing Penalty (veh)	13	313		0	0				170
Storage Bay Dist (ft)						300			
Storage Blk Time (%)					2	80			
Queuing Penalty (veh)					16	290			

Intersection: 9: SR 74

Movement	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	T	T	T	L	T	T
Maximum Queue (ft)	655	209	212	198	275	2072	1888
Average Queue (ft)	634	39	75	15	270	1132	335
95th Queue (ft)	647	136	178	82	277	2081	1388
Link Distance (ft)	574	489	489	489		8181	8181
Upstream Blk Time (%)	84						
Queuing Penalty (veh)	579						
Storage Bay Dist (ft)					250		
Storage Blk Time (%)					70		
Queuing Penalty (veh)					379		

Intersection: 10: Bend

Movement	WB	WB
Directions Served	T	T
Maximum Queue (ft)	54	72
Average Queue (ft)	4	13
95th Queue (ft)	27	51
Link Distance (ft)	529	529
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 3052

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	105.9	51.3	89.2	54.0	82.0

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	109.7

Design Year (2041) AM Peak Queuing and Performance Report
2041 No-Build_AM

07/14/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	309	360	1197	1213	260	209	437	409	136	425	472	621
Average Queue (ft)	217	277	649	654	207	177	249	240	27	317	347	278
95th Queue (ft)	321	411	1070	1041	317	253	407	372	93	442	492	534
Link Distance (ft)			32606	32606			12236	12236				9754
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	260	260			210	160			395	375	375	
Storage Blk Time (%)	7	13	30	32	5	24	20	0		3	12	
Queuing Penalty (veh)	49	82	157	202	34	90	43	0		10	37	

Intersection: 1: SR 74 & SR 54

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	T	T	T	R
Maximum Queue (ft)	434	420	425	248	309	324	416	357
Average Queue (ft)	225	228	117	124	222	231	234	154
95th Queue (ft)	334	343	311	225	306	300	335	345
Link Distance (ft)	9754	9754			8709	8709	8709	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			545	350				315
Storage Blk Time (%)						0	2	
Queuing Penalty (veh)						0	4	

Network Summary

Network wide Queuing Penalty: 709

1: SR 74 & SR 54 Performance by approach

Approach	EB	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1
Total Del/Veh (s)	145.2	478.7	205.9	145.3	238.9

Total Network Performance

Denied Del/Veh (s)	0.1
Total Del/Veh (s)	263.9

Design Year (2041) PM Peak Queuing and Performance Report
2041 No-Build_PM

07/14/2017

Intersection: 1: SR 74 & SR 54

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	R	L	T	T	R	L	L	T
Maximum Queue (ft)	310	360	2051	2046	260	210	5864	5853	445	425	475	3305
Average Queue (ft)	283	330	1055	950	157	186	3215	3208	192	370	430	1634
95th Queue (ft)	344	411	2155	2067	318	259	5899	5920	551	494	576	3404
Link Distance (ft)			32032	32032			21319	21319				9754
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	260	260			210	160			395	375	375	
Storage Blk Time (%)	31	56	15	26	1	32	70	71	0	46	69	
Queuing Penalty (veh)	171	315	82	132	7	224	160	100	0	129	192	

Intersection: 1: SR 74 & SR 54

Movement	NB	NB	NB	SB	SB	SB	SB	SB
Directions Served	T	T	R	L	T	T	T	R
Maximum Queue (ft)	2530	1611	227	376	1668	2458	2519	365
Average Queue (ft)	430	311	43	182	535	1310	1663	365
95th Queue (ft)	1387	828	175	307	1389	2502	2671	365
Link Distance (ft)	9754	9754			8702	8702	8702	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			545	350				315
Storage Blk Time (%)				0	0		2	85
Queuing Penalty (veh)				0	1		10	251

Network Summary

Network wide Queuing Penalty: 1775

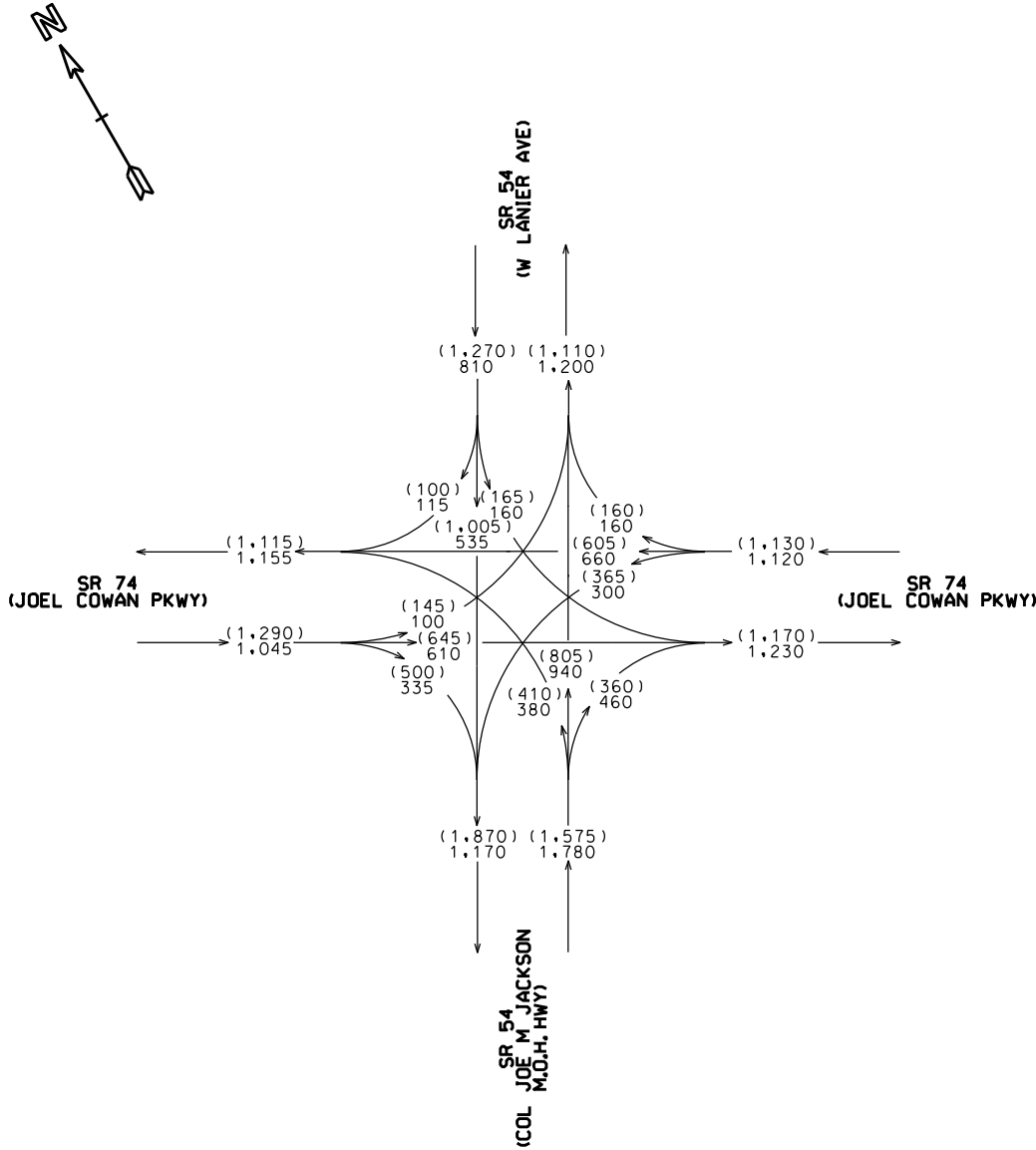
PROJECT CONCEPT REPORT

ATTACHMENT 4

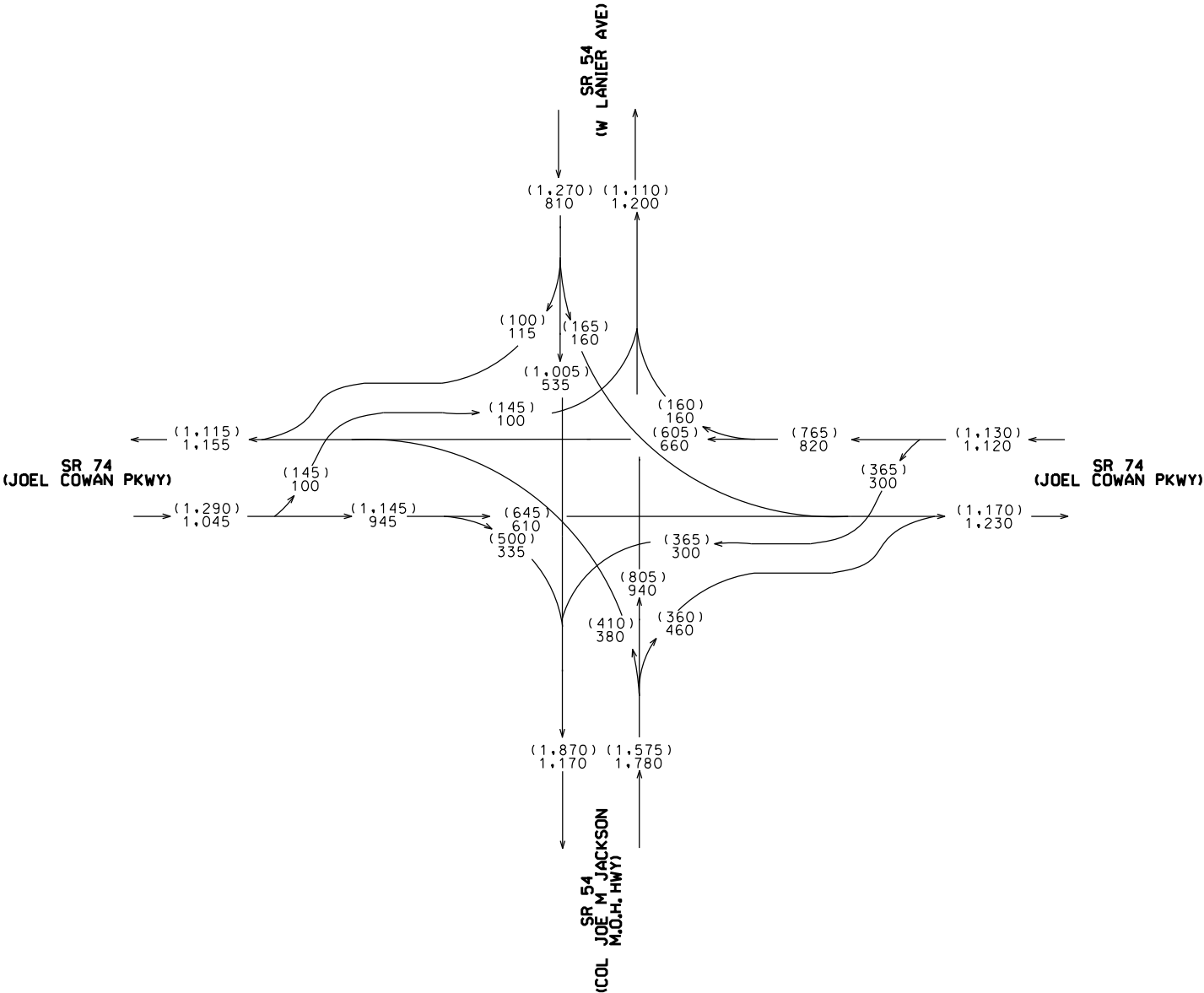
B. TRAFFIC VOLUMES

P.I. No. 0013726
Fayette County

DHV TRAFFIC
VOLUMES
EXISTING YEAR (2017)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



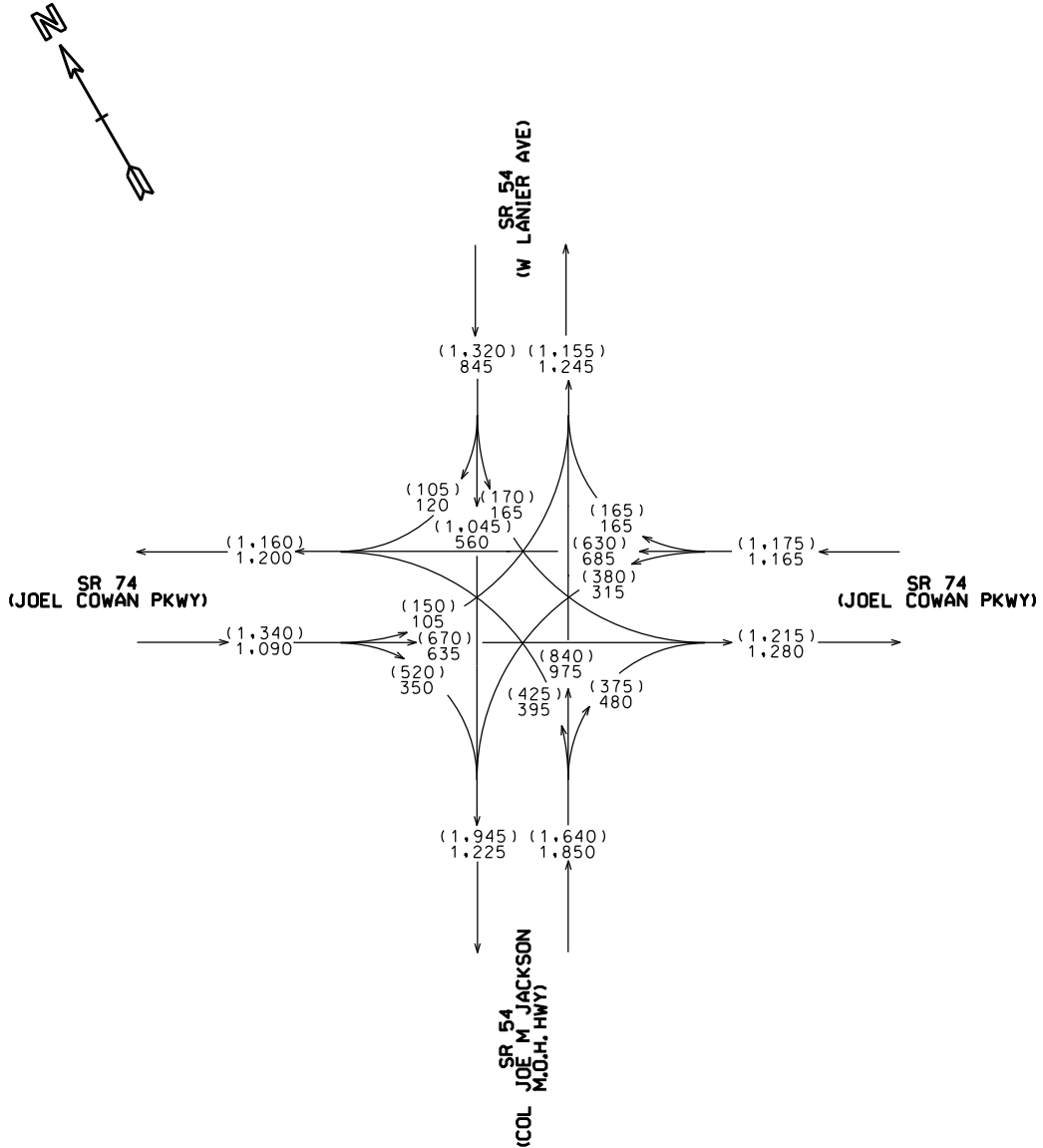
NO-BUILD



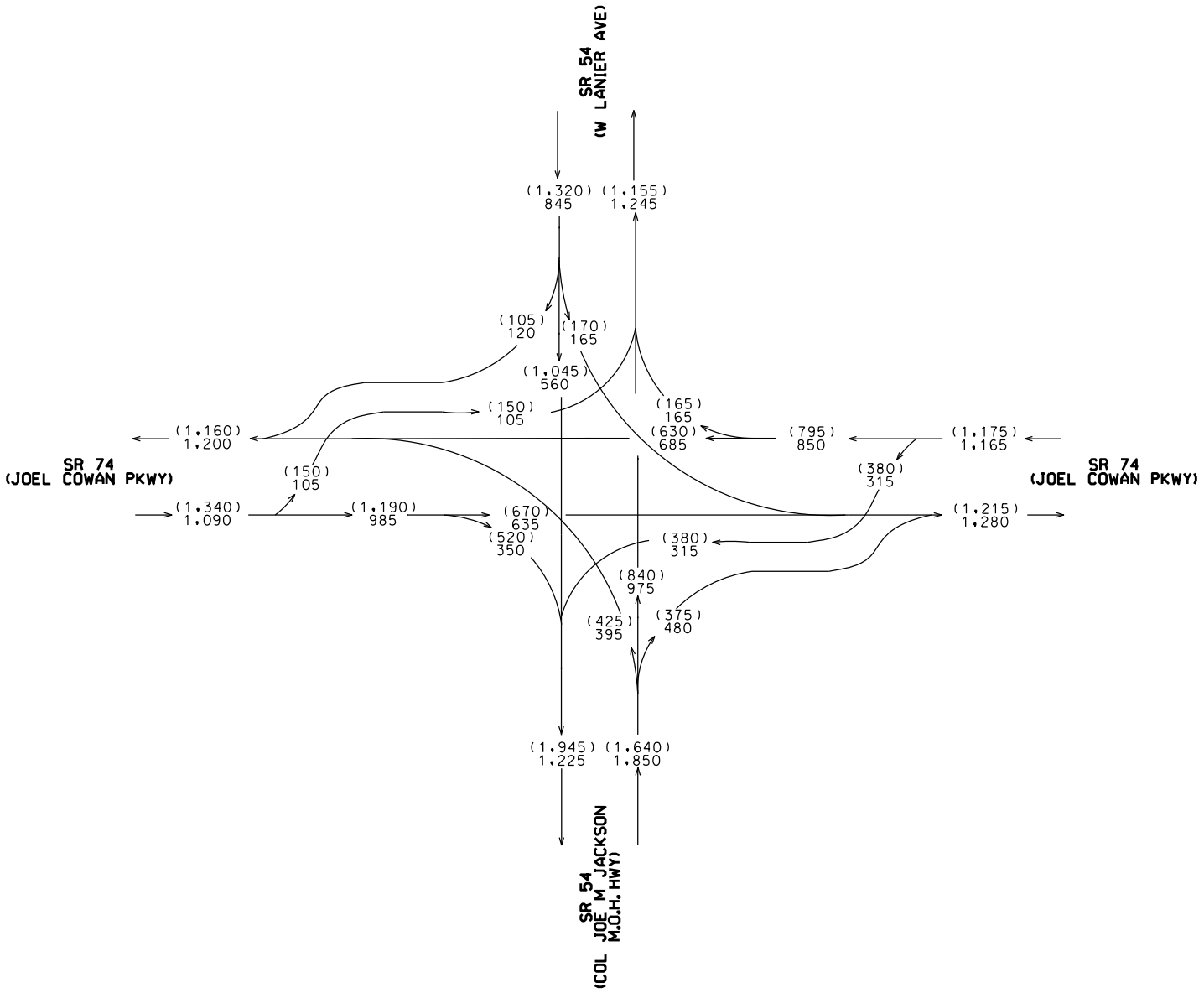
BUILD

PEAK HOUR TRUCK PERCENTAGES		
Location	AM	PM
SR 54 Eastbound	2.0%	2.0%
SR 54 Westbound	4.0%	2.0%
SR 74 Southbound	6.0%	2.5%
SR 74 Northbound	4.5%	4.0%
SR 54 at SR 74	3.5%	2.5%

DHV TRAFFIC
VOLUMES
BASE YEAR (2021)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



NO-BUILD

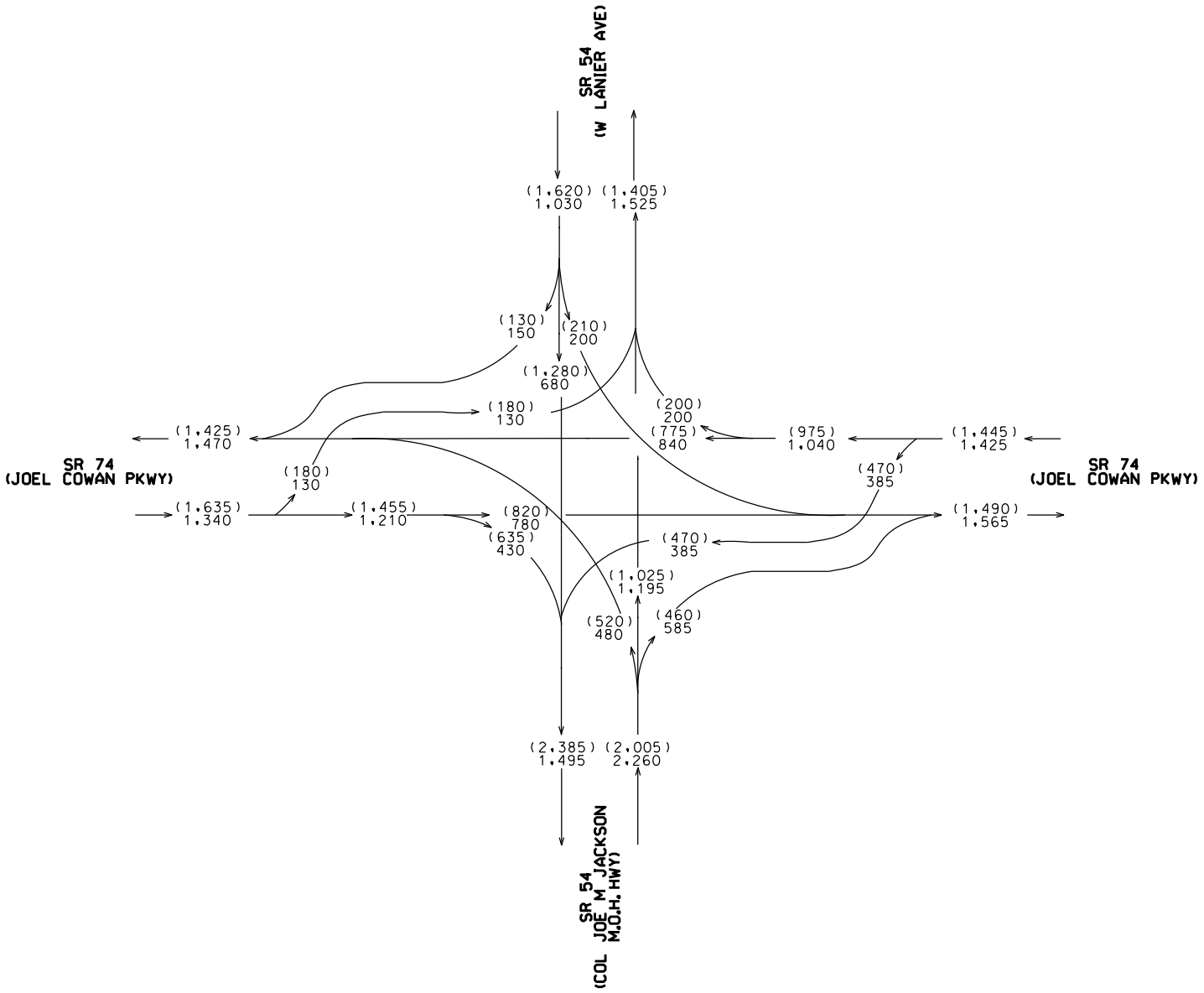
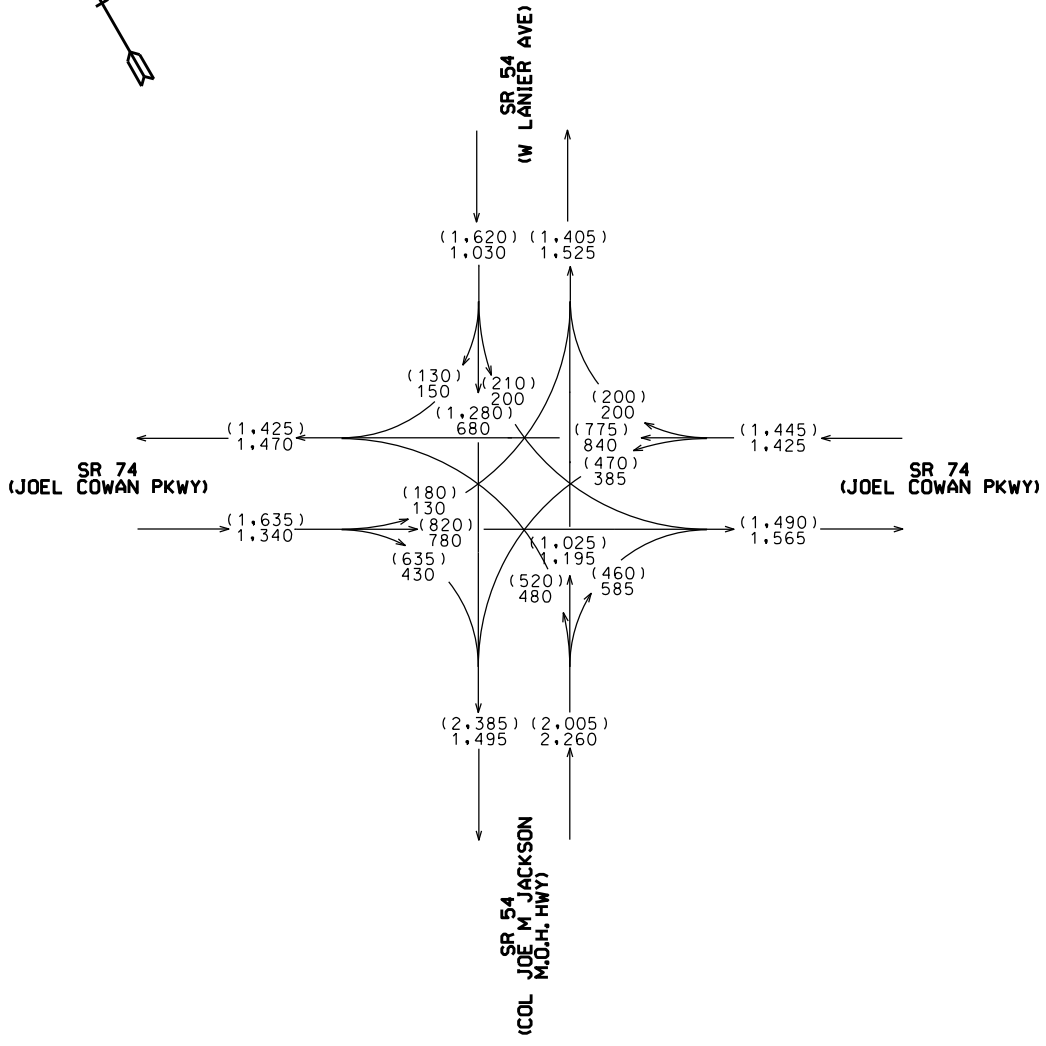
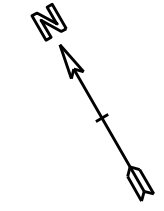


BUILD

PEAK HOUR TRUCK PERCENTAGES		
Location	AM	PM
SR 54 Eastbound	2.0%	2.0%
SR 54 Westbound	4.0%	2.0%
SR 74 Southbound	6.0%	2.5%
SR 74 Northbound	4.5%	4.0%
SR 54 at SR 74	3.5%	2.5%

REVISION DATES		

DHV TRAFFIC
VOLUMES
DESIGN YEAR (2041)
PM PEAK HOUR = (XXX)
AM PEAK HOUR = XXX



PEAK HOUR TRUCK PERCENTAGES		
Location	AM	PM
SR 54 Eastbound	2.0%	2.0%
SR 54 Westbound	4.0%	2.0%
SR 74 Southbound	6.0%	2.5%
SR 74 Northbound	4.5%	4.0%
SR 54 at SR 74	3.5%	2.5%

STATEWIDE OPERATIONAL IMPROVEMENTS
SR 54 AT SR 74



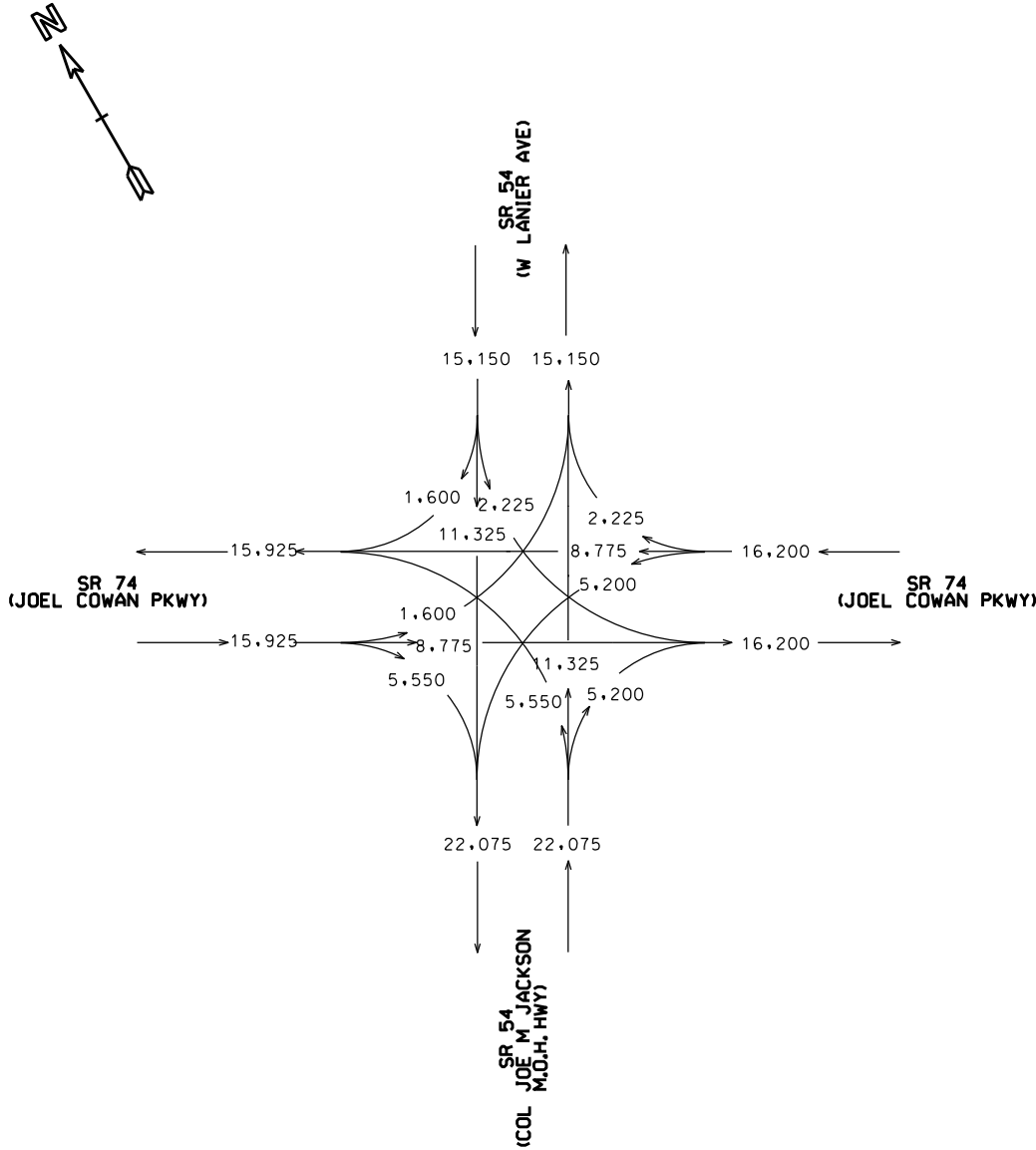
REVISION DATES		

STATE OF GEORGIA
DEPARTMENT OF TRANSPORTATION
OFFICE OF PLANNING
TRAFFIC DIAGRAM

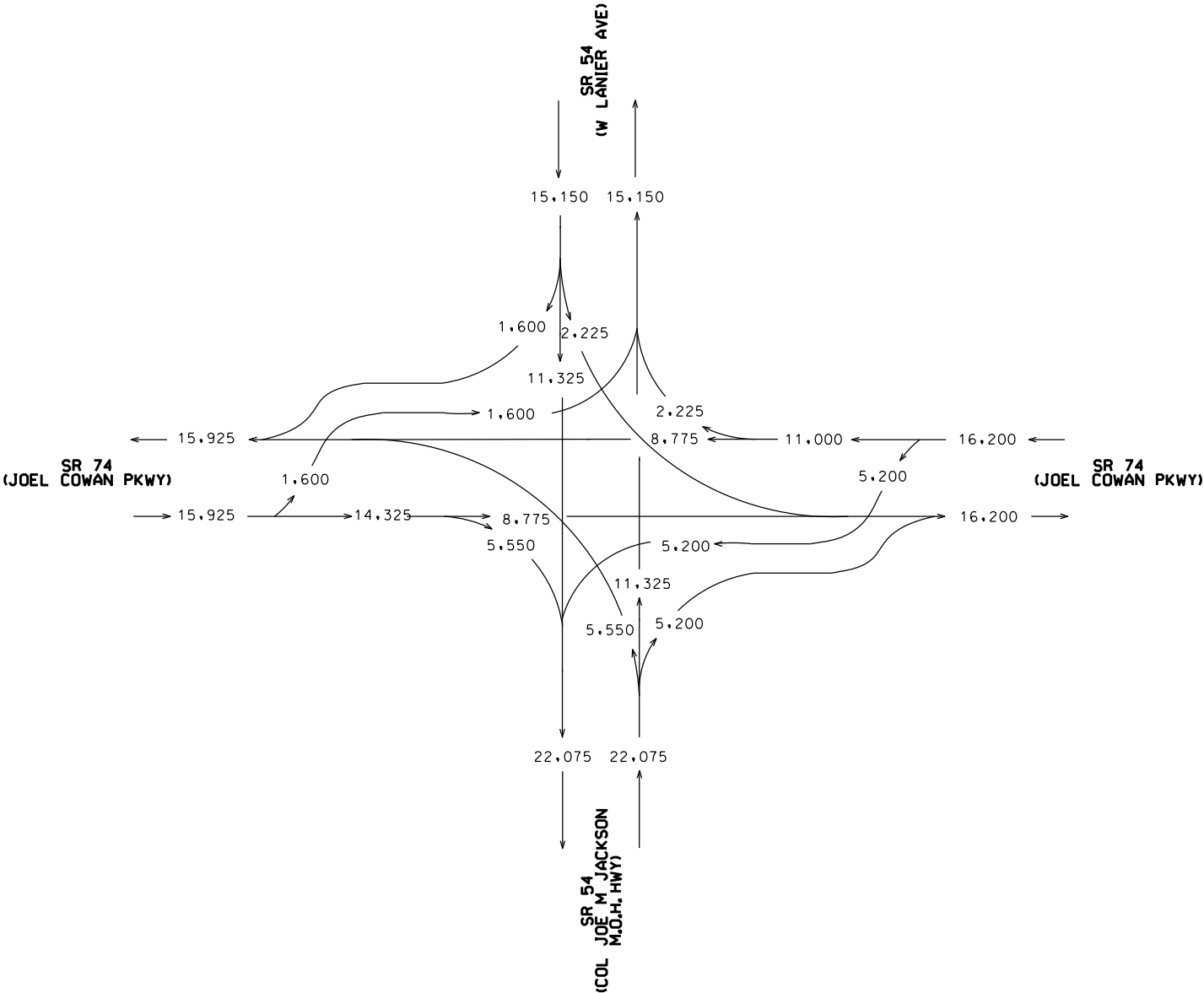
YEAR 2041 DHV
SHEET 1 OF 1

DRAWING No.
00-0004

AADT TRAFFIC
VOLUMES
EXISTING YEAR (2017)
AADT = XXX



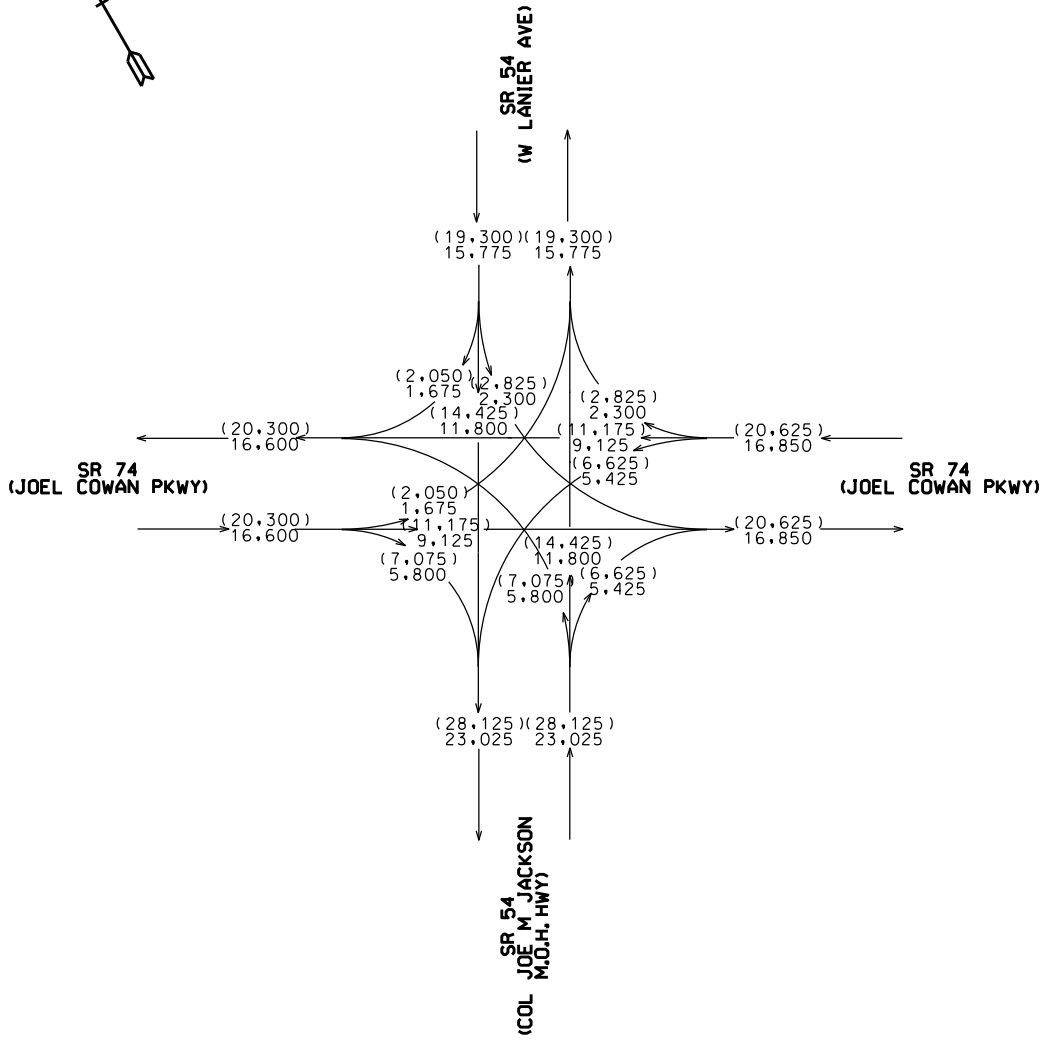
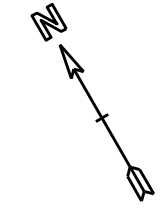
NO-BUILD



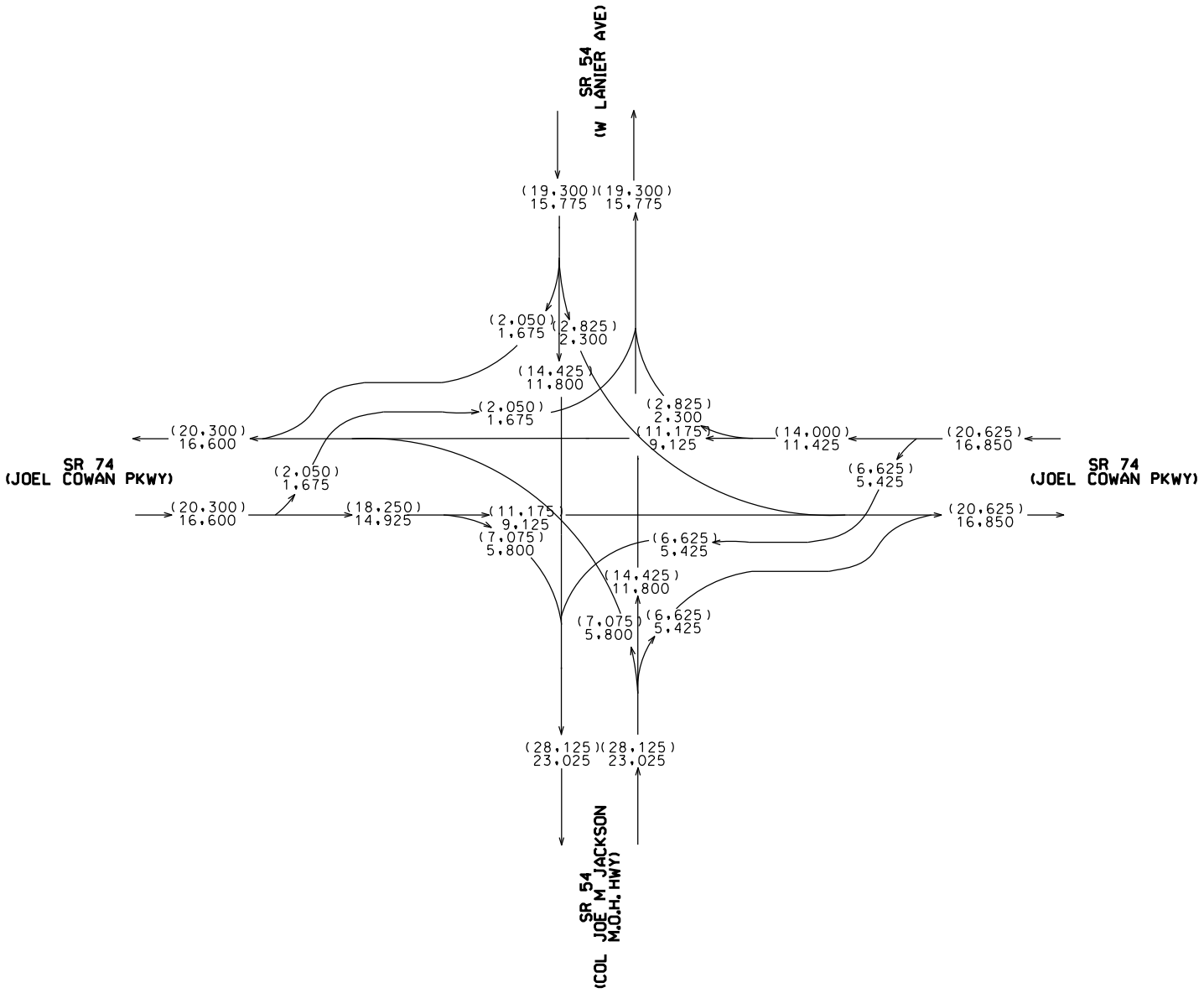
BUILD

24-HOUR TRUCK PERCENTAGES	
Location	24-Hour
SR 54 Eastbound	2.0%
SR 54 Westbound	3.0%
SR 74 Southbound	4.0%
SR 74 Northbound	4.5%
SR 54 at SR 74	3.0%

AADT TRAFFIC
VOLUMES
DESIGN YEAR (2041)
AADT = (XXX)
BASE YEAR (2021)
AADT = XXX



NO-BUILD



BUILD

24-HOUR TRUCK PERCENTAGES	
Location	24-Hour
SR 54 Eastbound	2.0%
SR 54 Westbound	3.0%
SR 74 Southbound	4.0%
SR 74 Northbound	4.5%
SR 54 at SR 74	3.0%

REVISION DATES		

PROJECT CONCEPT REPORT

ATTACHMENT 4

C. CRASH INFORMATION

P.I. No. 0013726
Fayette County

Crash Data:		Crash Severity		
Crash Type	3 most recent years of intersection crash data	PDO	Injuries	Fatalities
	Angle	17	3	0
	Head-On	1	0	0
	Rear End	163	33	0
	Sideswipe - same	17	0	0
	Sideswipe - opposite	0	0	0
	Not Collision w/Motor Veh	4	0	0
	TOTALS:	202	36	0

AccidentNo	AccidentNumber	Date	Time	County	Route	Milelog	IntersectingRoute	Injuries	Fatalities	MannerOfCollision	MicrofilmNo	LatDecir	LongDec
4868093	4868093	5/9/2014	16:30:00	FAYETTE	HIGHWAY 74		0 HIGHWAY 54	0	0	Rear End		33.397	-84.592
4868112	4868112	5/14/2014	18:58:00	FAYETTE	HWY 74		0 HWY 54	0	0	Rear End		33.397	-84.592
4868119	4868119	5/18/2014	18:12:00	FAYETTE	HIGHWAY 74		0 HIGHWAY 54	1	0	Rear End		33.397	-84.591
4879346	4879346	6/12/2014	17:00:00	FAYETTE	HWY 74		0 HWY 54	0	0	Rear End		33.397	-84.591
4879347	4879347	6/12/2014	17:10:00	FAYETTE	HWY 74		0 HWY 54	1	0	Rear End		33.397	-84.591
4879361	4879361	6/15/2014	21:58:00	FAYETTE	54	1.09	74	0	0	Rear End		33.398	-84.591
4892414	4892414	6/28/2014	12:24:00	FAYETTE	HIGHWAY 54		0 HIGHWAY 74	0	0	Rear End		33.397	-84.591
4902712	4902712	6/27/2014	13:17:00	FAYETTE	HWY 54		0 HWY 74	1	0	Rear End		33.397	-84.591
4902715	4902715	7/1/2014	19:38:00	FAYETTE	HIGHWAY 54		0 HIGHWAY 74	0	0	Rear End		33.397	-84.591
4902718	4902718	7/2/2014	15:18:00	FAYETTE	HWY 54		0 HWY 74	0	0	Sideswipe-Same Direction		33.397	-84.591
4902723	4902723	7/6/2014	13:54:00	FAYETTE	HWY 74 N		0 HWY 54	0	0	Rear End		33.397	-84.591
4905951	4905951	7/11/2014	22:15:00	FAYETTE	HWY 74		0 HWY 54	0	0	Rear End		33.397	-84.591
4909603	4909603	7/17/2014	6:03:00	FAYETTE	W HWY 54		0 N HWY 74	2	0	Angle		33.397	-84.591
4921408	4921408	7/29/2014	22:15:00	FAYETTE	HWY 74 S		0 HWY 54	0	0	Sideswipe-Same Direction		33.397	-84.591
4923554	4923554	7/29/2014	11:18:00	FAYETTE	SR 74	1.09	SR 54	0	0	Rear End		33.397	-84.591
4924733	4924733	8/1/2014	13:28:00	FAYETTE	SR 74	9.35	SR 54	0	0	Rear End		33.397	-84.592
4929675	4929675	8/6/2014	15:20:00	FAYETTE	HIGHWAY 54 HWY		0 HIGHWAY 74 HWY	0	0	Rear End		33.397	-84.591
4931614	4931614	8/8/2014	13:01:00	FAYETTE	SR 74	9.37	SR 54	0	0	Rear End		33.398	-84.592
4937506	4937506	8/13/2014	10:09:00	FAYETTE	SR 54 HWY		0 SR 74 HWY	0	0	Rear End		33.397	-84.591
4947218	4947218	7/24/2014	20:00:00	FAYETTE	HWY 74		0 HWY 54	0	0	Rear End		33.397	-84.592
4947219	4947219	7/25/2014	8:12:00	FAYETTE	HWY 74		0 HWY 54	0	0	Rear End		33.397	-84.59
4956663	4956663	8/29/2014	17:45:00	FAYETTE	HIGHWAY 54 HWY		0 HIGHWAY 74 HWY	0	0	Rear End		33.397	-84.591
4957248	4957248	8/30/2014	13:28:00	FAYETTE	STATE ROUTE 74 SR		0 HWY 54 HWY	0	0	Rear End		33.397	-84.591
4958069	4958069	8/31/2014	22:27:00	FAYETTE	SR 54	1.09	SR 74	0	0	Sideswipe-Same Direction		33.397	-84.591
4961029	4961029	9/3/2014	12:49:00	FAYETTE	STATE HIGHWAY 54 SR		0 HWY 74 STRA	0	0	Rear End		33.397	-84.591
4963590	4963590	9/3/2014	16:23:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End		33.397	-84.591
4964098	4964098	9/4/2014	13:20:00	FAYETTE	HIGHWAY 74 HWY		0 HIGHWAY 54 HWY	0	0	Rear End		33.397	-84.591
4965018	4965018	9/4/2014	19:59:00	FAYETTE	STATE HIGHWAY 74 HWY		0 STATE HIGHWAY 54 HWY	0	0	Rear End		33.397	-84.592
4972635	4972635	9/10/2014	14:24:00	FAYETTE	SR 74	9.36	SR 54	0	0	Rear End		33.397	-84.592
4972912	4972912	9/10/2014	22:01:00	FAYETTE	STATE ROUTE 54 HWY		0 STATE ROUTE 74 HWY	0	0	Not A Collision with Motor Vehicle		33.397	-84.591
4981641	4981641	9/16/2014	15:16:00	FAYETTE	SR 74	9.35	SR 54	0	0	Rear End		33.397	-84.592
4983097	4983097	9/13/2014	15:23:00	FAYETTE	HIGHWAY 54 HWY		0 HIGHWAY 74 HWY	0	0	Rear End		33.397	-84.591
4993600	4993600	9/23/2014	18:30:00	FAYETTE	SENOIA RD	9.36	W HIGHWAY 54	0	0	Rear End		33.397	-84.591
4996522	4996522	9/25/2014	1:41:00	FAYETTE	STATE ROUTE 74 HWY		0 STATE ROUTE 54 HWY	2	0	Angle		33.397	-84.591
4999791	4999791	9/29/2014	15:10:00	FAYETTE	SR 74	0.95	SR 54	0	0	Rear End		33.397	-84.591
5004009	5004009	10/2/2014	14:08:00	FAYETTE	HIGHWAY 74 HWY		0 HIGHWAY 54 HWY	0	0	Rear End		33.397	-84.591
5006352	5006352	10/4/2014	14:50:00	FAYETTE	HWY 74 HWY		0 HWY 54 HWY	0	0	Rear End		33.397	-84.591
5016977	5016977	10/13/2014	17:51:00	FAYETTE	STATE ROUTE 54 SR	1.08	S.R. 74 SR	0	0	Rear End		33.397	-84.591
5032548	5032548	10/28/2014	12:05:00	FAYETTE	SR 74	9.36	SR 54	0	0	Rear End		33.397	-84.592
5032932	5032932	10/28/2014	19:14:00	FAYETTE	SR 54	9.35	SR 74	0	0	Angle		33.397	-84.592
5036188	5036188	10/31/2014	11:53:00	FAYETTE	STATE ROUTE 54 SR	10.68	STATE ROUTE 74 SR	0	0	Rear End		33.397	-84.591
5040763	5040763	11/5/2014	8:50:00	FAYETTE	W HIGHWAY 54	9.35	SR 74	0	0	Rear End		33.397	-84.591
5043254	5043254	11/7/2014	15:40:00	FAYETTE	STATE ROUTE 54 HWY		0 STATE ROUTE 74 HWY	0	0	Sideswipe-Same Direction		33.397	-84.591
5043776	5043776	11/8/2014	10:15:00	FAYETTE	54 SR		0 74 SR	0	0	Rear End		33.397	-84.591
5050433	5050433	11/13/2014	17:25:00	FAYETTE	SR 74	9.36	W HIGHWAY 54	0	0	Rear End		33.397	-84.591
5051536	5051536	11/14/2014	18:30:00	FAYETTE	SR 74 HWY		0 SR 54 HWY	0	0	Angle		33.397	-84.591

5058106	5058106	11/20/2014	16:40:00	FAYETTE	STATE ROUTE 54 HWY	0	STATE ROUTE 74 HWY	0	0	Rear End	33.397	-84.591
5063151	5063151	11/24/2014	10:43:00	FAYETTE	SR 74	0.95	SR 54	0	0	Rear End	33.397	-84.591
5064294	5064294	11/25/2014	12:42:00	FAYETTE	SR 74	9.32	SR 54	0	0	Rear End	33.398	-84.592
5064584	5064584	11/25/2014	13:55:00	FAYETTE	STATE ROUTE 74 HWY	0	STATE ROUTE 54 HWY	0	0	Rear End	33.397	-84.591
5066962	5066962	11/28/2014	12:42:00	FAYETTE	SR 74	0.04	SR 54	1	0	Rear End	33.397	-84.591
5074079	5074079	12/4/2014	10:31:00	FAYETTE	HIGHWAY 54 HWY	0	HIGHWAY 74 HWY	0	0	Not A Collision with Motor Vehicle	33.397	-84.591
5076869	5076869	12/5/2014	19:46:00	FAYETTE	SR 74	9.36	W HIGHWAY 54	1	0	Rear End	33.398	-84.591
5077651	5077651	12/6/2014	12:08:00	FAYETTE	54 HWY	0	74 HWY	0	0	Rear End	33.397	-84.591
5090781	5090781	12/12/2014	9:27:00	FAYETTE	HIGHWAY 74 HWY	0	HIGHWAY 54 HWY	1	0	Rear End	33.397	-84.591
5095356	5095356	12/15/2014	11:22:00	FAYETTE	SR 54	0	SR 74	0	0	Sideswipe-Same Direction	33.397	-84.591
5099282	5099282	12/17/2014	18:35:00	FAYETTE	STATE ROUTE 74 SR	0	STATE ROUTE 54 SR	0	0	Rear End	33.397	-84.591
5102169	5102169	12/20/2014	0:30:00	FAYETTE	STATE ROUTE 74 HWY	0	STATE ROUTE 54 HWY	0	0	Not A Collision with Motor Vehicle	33.397	-84.591
5102288	5102288	12/20/2014	10:10:00	FAYETTE	54 HWY	0	74 HWY	0	0	Rear End	33.397	-84.591
5104249	5104249	12/22/2014	16:41:00	FAYETTE	SR 54	0	SR 74	0	0	Rear End	33.398	-84.591
5106059	5106059	12/24/2014	14:10:00	FAYETTE	PEACHTREE PARKWAY PKWY	0	HIGHWAY 74 SR	0	0	Sideswipe-Same Direction	33.397	-84.591
5106253	5106253	12/25/2014	20:32:00	FAYETTE	54 SR	0	74 SR	0	0	Head On	33.397	-84.591
5115622	5115622	1/2/2015	7:45:00	FAYETTE	HIGHWAY 54 HWY	0	HIGHWAY 74 HWY	0	0	Rear End	33.397	-84.591
5116039	5116039	1/2/2015	17:25:00	FAYETTE	SR 74	0	SR 54	0	0	Rear End	33.397	-84.592
5116212	5116212	1/2/2015	23:25:00	FAYETTE	W HIGHWAY 54	0	SR 74	0	0	Rear End	33.397	-84.591
5120287	5120287	1/7/2015	6:18:00	FAYETTE	HWY 74 HWY	0	HWY 54 HWY	1	0	Rear End	33.397	-84.591
5124832	5124832	1/10/2015	23:25:00	FAYETTE	S.R. 54 HWY	0	S.R. 74 HWY	0	0	Rear End	33.397	-84.591
5125136	5125136	1/11/2015	18:38:00	FAYETTE	STATE ROUTE 74 SR	10.68	STATE ROUTE 54 SR	0	0	Rear End	33.397	-84.591
5126119	5126119	1/12/2015	13:27:00	FAYETTE	74 HWY	0	54 HWY	1	0	Rear End	33.397	-84.591
5133499	5133499	1/19/2015	18:49:00	FAYETTE	SR 74	9.36	SR 54	0	0	Rear End	33.397	-84.591
5138243	5138243	1/23/2015	22:30:00	FAYETTE	STATE ROUTE 54 HWY	0	HIGHWAY 74 HWY	0	0	Rear End	33.397	-84.591
5143443	5143443	1/27/2015	18:38:00	FAYETTE	SR 74	9.37	SR 54	0	0		33.397	-84.591
5164664	5164664	2/3/2015	14:13:00	FAYETTE	W HIGHWAY 54	1.06	SR 74	1	0	Rear End	33.397	-84.591
5181200	5181200	2/17/2015	16:10:00	FAYETTE	74 SOUTH HWY	0	54 HWY	0	0	Rear End	33.397	-84.591
5196243	5196243	2/24/2015	20:02:00	FAYETTE	STATE ROUTE 74 HWY	0	STATE ROUTE 54 HWY	0	0	Rear End	33.397	-84.591
5197635	5197635	2/26/2015	10:43:00	FAYETTE	SR 74	9.36	SR 54	0	0	Rear End	33.397	-84.591
5202639	5202639	3/2/2015	6:24:00	FAYETTE	SR 74	0	SR 54	0	0	Sideswipe-Same Direction	33.397	-84.591
5213318	5213318	3/11/2015	18:09:00	FAYETTE	STATE ROUTE 74 HWY	0	STATE ROUTE 54 HWY	1	0	Rear End	33.397	-84.591
5215361	5215361	3/13/2015	9:57:00	FAYETTE	SR 74	9.36	SR 54	0	0	Rear End	33.397	-84.592
5231910	5231910	3/26/2015	21:12:00	FAYETTE	STATE ROUTE 54 HWY	0	STATE ROUTE 74 HWY	1	0	Rear End	33.397	-84.591
5238683	5238683	4/1/2015	2:15:00	FAYETTE	STATE ROUTE 74 HWY	0	STATE ROUTE 54 HWY	0	0	Rear End	33.397	-84.591
5241829	5241829	4/4/2015	6:40:00	FAYETTE	54 HWY	0	74 HWY	0	0	Angle	33.397	-84.591
5249600	5249600	4/11/2015	10:38:00	FAYETTE	SR 74	9.36	W HIGHWAY 54	1	0	Rear End	33.397	-84.591
5249992	5249992	4/10/2015	22:44:00	FAYETTE	STATE ROUTE 54 HWY	0	STATE ROUTE 74 HWY	0	0	Sideswipe-Same Direction	33.397	-84.591
5250036	5250036	4/9/2015	17:17:00	FAYETTE	SR 74	9.36	SR 54	0	0	Rear End	33.397	-84.591
5258191	5258191	4/20/2015	8:00:00	FAYETTE	SR 74	9.37	SR 54	0	0	Angle	33.397	-84.591
5266733	5266733	4/26/2015	7:15:00	FAYETTE	STATE ROUTE 74 SR	0	STATE ROUTE 54 SR	0	0	Rear End	33.397	-84.591
5267979	5267979	4/26/2015	18:34:00	FAYETTE	SR 74	9.37	W HIGHWAY 54	0	0	Rear End	33.397	-84.591
5273276	5273276	5/1/2015	12:00:00	FAYETTE	STATE ROUTE 74 RTE	0	STATE ROUTE 54 RTE	0	0	Rear End	33.397	-84.591
5289918	5289918	5/15/2015	15:40:00	FAYETTE	STATE ROUTE 74 RTE	0	STATE ROUTE 54 RTE	0	0	Rear End	33.397	-84.591
5291339	5291339	5/17/2015	16:15:00	FAYETTE	SR 54 HWY	0	SR 54 HWY	0	0	Rear End	33.397	-84.591
5318814	5318814	6/9/2015	13:37:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
5320973	5320973	6/11/2015	8:09:00	FAYETTE	W HIGHWAY 54	1.08	SR 74	0	0	Rear End	33.397	-84.591

5324798	5324798	6/15/2015	15:19:00	FAYETTE	HWY 74	9.36	W HIGHWAY 54	0	0	Rear End	33.397	-84.592
5324848	5324848	6/15/2015	12:15:00	FAYETTE	HIGHWAY 74	9.36	W HIGHWAY 54	0	0	Rear End	33.397	-84.591
5325259	5325259	6/12/2015	12:36:00	FAYETTE	HWY 74 HWY	9.36	HWY 54 HWY	0	0	Rear End	33.397	-84.591
5328395	5328395	6/17/2015	18:30:00	FAYETTE	HIGHWAY 54 HWY	9.36	HIGHWAY 74 HWY	0	0	Rear End	33.397	-84.591
5328756	5328756	6/18/2015	13:47:00	FAYETTE	HWY 54 00	0	HWY 74 00	0	0	Rear End	33.397	-84.591
5332976	5332976	6/22/2015	16:37:00	FAYETTE	SR 74	0.95	SR 54	0	0	Rear End	33.397	-84.592
5333704	5333704	6/23/2015	13:24:00	FAYETTE	W HIGHWAY 54	1.01	HIGHWAY 74	2	0	Rear End	33.397	-84.591
5338519	5338519	6/27/2015	15:53:00	FAYETTE	74 HWY	9.36	54 HWY	0	0	Rear End	33.398	-84.592
5350512	5350512	7/9/2015	9:01:00	FAYETTE	HIGHWAY 74 HWY	0	HIGHWAY 54 HWY	0	0	Rear End	33.397	-84.591
5351218	5351218	7/9/2015	18:13:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5352785	5352785	7/11/2015	10:40:00	FAYETTE	HIGHWAY 74 HWY	0	HWY 54 HWY	0	0	Rear End	33.397	-84.591
5357619	5357619	7/14/2015	17:55:00	FAYETTE	HIGHWAY 74	9.37	W HIGHWAY 54	3	0	Rear End	33.397	-84.591
5363803	5363803	7/21/2015	18:40:00	FAYETTE	74 SR	0	54 SR	0	0	Rear End	33.397	-84.591
5372141	5372141	7/28/2015	16:24:00	FAYETTE	54 HWY	0	74 HWY	0	0	Rear End	33.397	-84.591
5372714	5372714	7/29/2015	15:56:00	FAYETTE	74 HWY	0	54 HWY	0	0	Rear End	33.397	-84.591
5375493	5375493	7/31/2015	12:47:00	FAYETTE	HWY 74 SR	0	HWY 54 SR	0	0	Rear End	33.397	-84.591
5379867	5379867	8/4/2015	20:33:00	FAYETTE	54 HWY	0	74 HWY	0	0	Rear End	33.397	-84.591
5398938	5398938	8/21/2015	14:25:00	FAYETTE	HWY 74	9.36	HWY 54	1	0	Rear End	33.397	-84.591
5405837	5405837	8/27/2015	20:12:00	FAYETTE	HWY 54	1.09	HWY74	1	0	Rear End	33.397	-84.591
5407015	5407015	8/30/2015	14:12:00	FAYETTE	HIGHWAY 74	9.36	W HIGHWAY 54	1	0	Rear End	33.397	-84.591
5407016	5407016	8/30/2015	10:29:00	FAYETTE	HIGHWAY 74	9.36	W HIGHWAY 54	1	0	Rear End	33.397	-84.591
5408569	5408569	8/31/2015	11:20:00	FAYETTE	HIGHWAY 74	9.35	W HIGHWAY 54	0	0	Rear End	33.397	-84.591
5411288	5411288	8/29/2015	12:16:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
5424679	5424679	9/14/2015	18:35:00	FAYETTE	W LANIER AVE	1.05		1	0	Rear End	33.397	-84.592
5458327	5458327	10/1/2015	15:30:00	FAYETTE	HWY 54 SR	0	HWY 54 SR	0	0	Rear End	33.397	-84.591
5458585	5458585	10/5/2015	15:08:00	FAYETTE	HWY 74	1.09	HWY 54	0	0	Rear End	33.397	-84.591
5465510	5465510	10/12/2015	0:00:00	FAYETTE	HIGHWAY 54	9.35	HIGHWAY 74	0	0	Rear End	33.397	-84.591
5466474	5466474	10/13/2015	10:20:00	FAYETTE	HWY 54	1.02	HWY 74	0	0	Rear End	33.397	-84.592
5473885	5473885	10/19/2015	11:00:00	FAYETTE	JOEL COWAN PKWY	9.36	W LANIER AVE	0	0	Rear End	33.397	-84.592
5478748	5478748	10/22/2015	7:05:00	FAYETTE	JOEL COWAN PKWY	9.36	W LANIER AVE	0	0	Angle	33.397	-84.591
5489918	5489918	10/30/2015	12:55:00	FAYETTE	HWY 54	9.36	HWY 74	1	0	Rear End	33.397	-84.591
5494577	5494577	11/2/2015	19:51:00	FAYETTE	HWY 74	1.05	HWY 54	0	0	Rear End	33.397	-84.592
5499491	5499491	11/5/2015	6:06:00	FAYETTE	JOEL COWAN PKWY	9.35		0	0	Rear End	33.397	-84.591
5513402	5513402	11/14/2015	17:10:00	FAYETTE	W LANIER AVE	1.12		0	0	Rear End	33.398	-84.591
5522137	5522137	11/23/2015	16:43:00	FAYETTE	HIGHWAY 74	9.34	HIGHWAY 54	0	0	Rear End	33.397	-84.592
5525988	5525988	11/26/2015	20:09:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
5533926	5533926	12/2/2015	0:00:00	FAYETTE	SR 74	9.34	SR 54	0	0	Rear End	33.398	-84.592
5541683	5541683	12/7/2015	15:50:00	FAYETTE	HWY 74	9.33	HWY 54	0	0	Rear End	33.398	-84.592
5546627	5546627	12/11/2015	11:45:00	FAYETTE	HIGHWAY 54	0.94	CITY CIRCLE	0	0	Rear End	33.397	-84.591
5557751	5557751	12/11/2015	21:20:00	FAYETTE	HWY 74	1.11	HWY 54	0	0	Rear End	33.397	-84.592
5563601	5563601	12/22/2015	17:12:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
5573499	5573499	12/29/2015	8:40:00	FAYETTE	HWY 54	1.12	HWY 74	2	0	Rear End	33.398	-84.591
5591504	5591504	1/8/2016	17:57:00	FAYETTE	HWY 54	1.07	HWY 74	0	0	Rear End	33.397	-84.591
5595128	5595128	1/12/2016	7:45:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.592
5602743	5602743	1/18/2016	15:08:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5602785	5602785	1/18/2016	16:15:00	FAYETTE	HWY 74 SOUTH HWY	0	HWY 54 HWY	0	0	Angle	33.397	-84.591
5607384	5607384	1/15/2016	17:33:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591

5610407	5610407	1/25/2016	8:52:00	FAYETTE	W HIGHWAY 54	9.34	HIGHWAY 74	0	0	Rear End	33.397	-84.591
5612955	5612955	1/27/2016	17:24:00	FAYETTE	HWY. 74	9.36	HWY. 54	0	0	Rear End	33.397	-84.591
5637746	5637746	2/15/2016	11:48:00	FAYETTE	HIGHWAY 54	1.12	HIGHWAY 74	1	0	Rear End	33.398	-84.59
5638659	5638659	2/16/2016	11:21:00	FAYETTE	HIGHWAY 74	1.09	HIGHWAY 54	0	0	Rear End	33.397	-84.591
5648851	5648851	2/24/2016	14:50:00	FAYETTE	HIGHWAY 74	9.36	W HIGHWAY 54	0	0	Rear End	33.397	-84.591
5648899	5648899	2/25/2016	7:46:00	FAYETTE	SR 74	9.36	W HIGHWAY 54	0	0	Rear End	33.397	-84.591
5660889	5660889	3/4/2016	14:20:00	FAYETTE	N HIGHWAY 74	9.36	W HIGHWAY 54	0	0	Rear End	33.397	-84.592
5667758	5667758	3/9/2016	17:54:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5681820	5681820	3/20/2016	17:06:00	FAYETTE	HWY 74	9.35	HWY 54	0	0	Rear End	33.397	-84.592
5689816	5689816	3/27/2016	13:33:00	FAYETTE	HIGHWAY 74	9.34	HIGHWAY 54	0	0	Rear End	33.398	-84.591
5691378	5691378	3/28/2016	15:50:00	FAYETTE	HWY 74	0	W LANIER AVE	0	0	Rear End	33.397	-84.591
5691381	5691381	3/28/2016	17:55:00	FAYETTE	HWY 74	1.07	HWY 54	0	0	Rear End	33.397	-84.592
5694433	5694433	3/27/2016	16:48:00	FAYETTE	HIGHWAY 74	9.34	HIGHWAY 54	0	0	Rear End	33.397	-84.591
5699833	5699833	4/2/2016	22:06:00	FAYETTE	SR 74	1.08	SR 54	0	0	Rear End	33.397	-84.591
5702873	5702873	4/5/2016	15:34:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Sideswipe-Same Direction	33.397	-84.591
5716294	5716294	4/17/2016	12:48:00	FAYETTE	HIGHWAY 74	9.42	CIRCLE GATE	0	0	Rear End	33.397	-84.59
5721802	5721802	4/20/2016	19:43:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5735918	5735918	4/29/2016	15:35:00	FAYETTE	SR 74	1.07	W HIGHWAY 54	0	0	Rear End	33.397	-84.591
5736153	5736153	4/29/2016	12:11:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
5737015	5737015	4/30/2016	18:04:00	FAYETTE	HWY 74	1.09	HWY 54	1	0	Rear End	33.397	-84.59
5751807	5751807	5/11/2016	17:50:00	FAYETTE	HWY 54	9.37	HWY 74	0	0	Angle	33.397	-84.591
5751823	5751823	5/11/2016	19:31:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5763845	5763845	5/20/2016	13:22:00	FAYETTE	HWY 74	9.33	HWY 54	0	0	Rear End	33.397	-84.591
5778075	5778075	5/30/2016	17:17:00	FAYETTE	HWY 74	0.62	HWY 54	0	0	Rear End	33.398	-84.592
5786055	5786055	6/6/2016	13:04:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.592
5786107	5786107	6/6/2016	15:50:00	FAYETTE	HWY 54	9.36	HWY 74	6	0	Rear End	33.397	-84.591
5788898	5788898	6/9/2016	11:23:00	FAYETTE	HWY 54	9.36	HWY 74	1	0	Rear End	33.397	-84.591
5791087	5791087	6/8/2016	18:35:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5798200	5798200	6/17/2016	11:53:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5801794	5801794	6/20/2016	9:45:00	FAYETTE	SR 74	9.36	SR 54	0	0	Angle	33.397	-84.591
5811613	5811613	6/22/2016	17:35:00	FAYETTE	HWY 54	1.09	HWY 74	1	0	Rear End	33.397	-84.591
5817399	5817399	7/1/2016	11:35:00	FAYETTE	HWY 74	9.28	HWY 54	0	0	Rear End	33.398	-84.592
5825165	5825165	7/9/2016	9:25:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.592
5828383	5828383	7/12/2016	14:21:00	FAYETTE	HWY 74	1.09	HWY 54	2	0	Rear End	33.397	-84.591
5830079	5830079	7/14/2016	0:00:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5847747	5847747	7/23/2016	19:22:00	FAYETTE	HWY 74	9.34	HWY 54	0	0	Not A Collision with Motor Vehicle	33.398	-84.591
5870659	5870659	8/9/2016	14:57:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Angle	33.397	-84.591
5870857	5870857	8/9/2016	15:20:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Sideswipe-Same Direction	33.397	-84.591
5879790	5879790	8/16/2016	18:19:00	FAYETTE	HWY 74	9.35	HWY 54	0	0	Rear End	33.397	-84.592
5885035	5885035	8/20/2016	11:02:00	FAYETTE	HWY 74	0.95	HWY 54	0	0	Rear End	33.397	-84.591
5887893	5887893	8/22/2016	18:05:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5888243	5888243	8/22/2016	21:18:00	FAYETTE	HWY 74	9.37	HWY 54	0	0	Angle	33.397	-84.591
5888773	5888773	8/23/2016	11:45:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.592
5893807	5893807	8/26/2016	16:40:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Sideswipe-Same Direction	33.397	-84.591
5894655	5894655	8/27/2016	16:38:00	FAYETTE	HWY 54	1.07	HWY 74	0	0	Rear End	33.397	-84.591
5913535	5913535	9/11/2016	20:22:00	FAYETTE	HWY 74	1.08	HWY 54	0	0	Rear End	33.397	-84.591
5924126	5924126	9/17/2016	20:40:00	FAYETTE	HWY 54	1.08	HWY 74	0	0	Sideswipe-Same Direction	33.397	-84.591

5947455	5947455	10/6/2016	14:45:00	FAYETTE	HWY 54	1.08	HWY 74	1	0	Rear End	33.397	-84.592
5947661	5947661	10/4/2016	19:40:00	FAYETTE	HWY 54	1.11	HWY 74	0	0	Angle	33.397	-84.591
5947685	5947685	10/6/2016	19:12:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5949979	5949979	10/9/2016	11:57:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5959821	5959821	10/17/2016	8:40:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
5977394	5977394	10/29/2016	0:00:00	FAYETTE	HIGHWAY 54	1.09	HIGHWAY 74	2	0	Rear End	33.397	-84.591
5989992	5989992	11/7/2016	17:01:00	FAYETTE	HWY 54	1.08	HWY 74	0	0	Rear End	33.397	-84.591
6000922	6000922	11/15/2016	18:31:00	FAYETTE	HWY 54	9.38	HWY 74	0	0	Angle	33.397	-84.591
6005671	6005671	11/18/2016	12:30:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
6016120	6016120	11/23/2016	15:25:00	FAYETTE	HWY 74	9.36	HWY 54	1	0	Rear End	33.397	-84.591
6017792	6017792	11/28/2016	15:12:00	FAYETTE	HWY 74	9.36	HWY 54	1	0	Rear End	33.397	-84.591
6021835	6021835	12/1/2016	18:50:00	FAYETTE	HWY 54	1.13	HWY 74	0	0	Rear End	33.398	-84.59
6026166	6026166	12/3/2016	20:17:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
6030383	6030383	12/6/2016	19:45:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
6031764	6031764	12/7/2016	21:57:00	FAYETTE	HWY 74	9.36	HWY 54	3	0	Angle	33.397	-84.591
6034617	6034617	12/9/2016	12:56:00	FAYETTE	HWY 54	1.05	HWY 74	0	0	Rear End	33.397	-84.591
6035849	6035849	12/10/2016	16:47:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
6042123	6042123	12/15/2016	17:15:00	FAYETTE	HWY 54	1.08	HWY 74	0	0	Rear End	33.397	-84.591
6042936	6042936	12/14/2016	14:06:00	FAYETTE	HWY 54	1.11	HWY 74	0	0	Sideswipe-Same Direction	33.397	-84.591
6049423	6049423	12/21/2016	15:45:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
6054313	6054313	12/25/2016	21:47:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
6061146	6061146	12/30/2016	7:05:00	FAYETTE	W LANIER AVE	9.36	JOEL COWAN PKWY	0	0	Rear End	33.397	-84.591
6076009	6076009	1/12/2017	12:22:00	FAYETTE	HWY 74	1.08	HWY 54	0	0	Sideswipe-Same Direction	33.397	-84.591
6084000	6084000	1/18/2017	7:05:00	FAYETTE	HWY 54	1.08	HWY 74	0	0	Rear End	33.397	-84.591
6095826	6095826	1/27/2017	15:42:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Angle	33.397	-84.591
6098304	6098304	1/30/2017	13:12:00	FAYETTE	HWY 54	1.09	HWY 74	0	0	Rear End	33.397	-84.591
6102086	6102086	2/1/2017	23:07:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
6104054	6104054	2/3/2017	9:52:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Rear End	33.397	-84.591
6113227	6113227	2/9/2017	11:33:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Rear End	33.397	-84.591
6115004	6115004	2/11/2017	20:01:00	FAYETTE	HWY 54	9.36	HWY 74	0	0	Sideswipe-Same Direction	33.397	-84.591
6120497	6120497	2/12/2017	19:38:00	FAYETTE	HWY 74	1.09	HWY 54	0	0	Angle	33.397	-84.591
6122784	6122784	2/18/2017	13:10:00	FAYETTE	HWY 54	1.09	HWY 74	1	0	Rear End	33.397	-84.591
6143996	6143996	3/7/2017	15:18:00	FAYETTE	HWY 74	9.36	HWY 54	0	0	Sideswipe-Same Direction	33.397	-84.591
6147508	6147508	3/12/2017	10:40:00	FAYETTE	HWY 74	0	HWY 54	0	0	Angle	33.398	-84.592
6150745	6150745	3/14/2017	16:09:00	FAYETTE	HWY 74	0	MARKETPLACE BLVD	0	0	Rear End	33.397	-84.591
6160526	6160526	3/22/2017	13:31:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6162130	6162130	3/23/2017	8:08:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6165963	6165963	3/25/2017	16:38:00	FAYETTE	HWY 74	0	HWY 54	1	0	Rear End	33.397	-84.591
6167579	6167579	3/27/2017	20:30:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6169880	6169880	3/29/2017	0:00:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6173388	6173388	3/31/2017	12:06:00	FAYETTE	HWY 54	0	HWY 74	0	0	Angle	33.397	-84.591
6176158	6176158	4/3/2017	0:00:00	FAYETTE	HIGHWAY 74	0	HIGHWAY 54	0	0	Rear End	33.397	-84.591
6194019	6194019	4/14/2017	18:31:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6194170	6194170	4/14/2017	22:04:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6196592	6196592	4/13/2017	16:58:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6197455	6197455	4/17/2017	18:42:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591
6204832	6204832	4/23/2017	14:04:00	FAYETTE	HWY 74	0	HWY 54	0	0	Rear End	33.397	-84.591

6208224	6208224	4/26/2017	10:11:00	FAYETTE	HWY 54	0 HWY 74	0	0 Sideswipe-Same Direction	33.397	-84.591
6208418	6208418	4/25/2017	8:38:00	FAYETTE	HWY 54	0 HWY 74	0	0 Rear End	33.397	-84.591
6208802	6208802	4/26/2017	12:00:00	FAYETTE	HWY 54	0 HWY 74	0	0 Rear End	33.397	-84.591
6209515	6209515	4/27/2017	14:03:00	FAYETTE	HWY 74	0 HWY 54	0	0 Rear End	33.397	-84.591
6215731	6215731	5/2/2017	11:16:00	FAYETTE	HWY 74	0 HWY 54	0	0 Angle	33.397	-84.591

PROJECT CONCEPT REPORT

ATTACHMENT 5

MS4 CONCEPT REPORT CHECKLIST

P.I. No. 0013726

Fayette County

MS4 Concept Report Summary

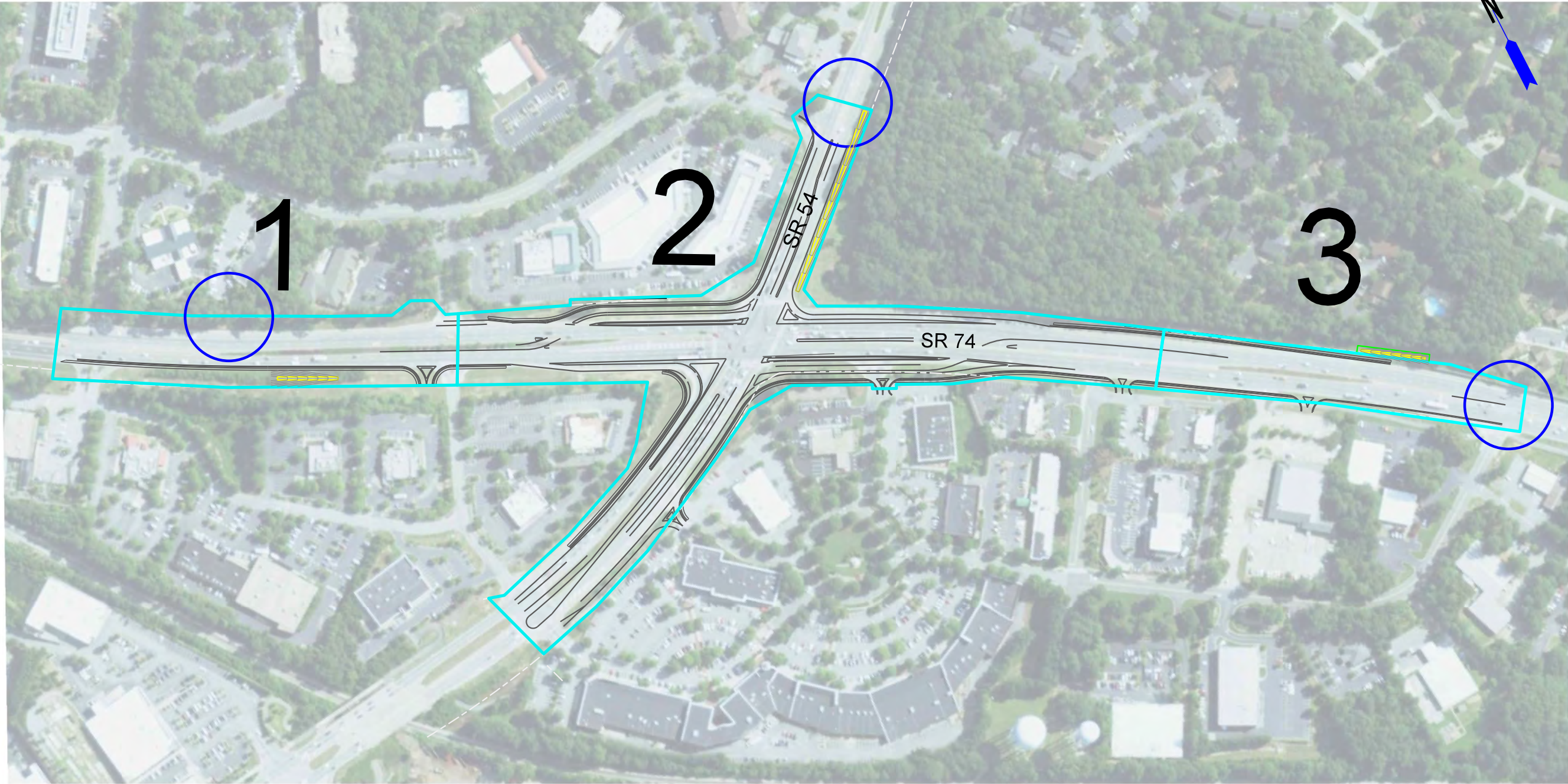
Attach the following checklist information to the Concept Report Template:

-
- Is there a Project Level Exclusion that applies to this project: ☒ No ☐ Yes
- If yes, please indicate which of the following exclusions apply:
- ☐ Roadways that are not owned or operated (maintained) by GDOT may not require post-construction BMPs. Coordinate with the appropriate local government or entity to determine stormwater management requirements.
 - ☐ The project location is not within a designated MS4 area.
 - ☐ Maintenance and safety improvement projects whereby the sites are not connected and disturbs less than one acre at each individual site. This includes projects such as repaving, shoulder building, fiber optic line installation, sign addition, and sound barrier installation.
 - ☐ Projects that have their environmental documents approved or right-of-way plans submitted for approval on or before June 30th, 2012.
 - ☐ Road projects that disturb less than 1 acre or for site development projects that add less than 5,000 ft² of impervious area.
-

Drainage Area Summary									
Outfall Area	Pre-Development			Post-Development			Water Quality Volume (Cubic Feet)	Channel Protection Volume (Cubic Feet)	Required Detention Volume (Cubic Feet)
	Tc	Weighted CN	Area (Acres)	Tc	Weighted CN	Area (Acres)			
1	10	95	4.04	10	96	4.04	1176	27912	8636
2	10	96	12.68	10	97	12.68	5175	90862	27600
3	10	97	2.83	10	97	2.83	980	20279	0

BMP Selection and Feasibility Summary						
	Outfall Level Exclusion?		BMP Selected	Is the BMP Feasible?		
	Y/N	Exclusion No.		Y/N	Infeasibility Criteria No.	¹ Feasibility of an Infiltration BMP
Outfall Area						
1	N	N/A	Dry enhanced swale	Y	N/A	N/A
2	N	N/A	Dry enhanced swale	Y	N/A	N/A
3	N	N/A	Dry enhanced swale	Y	N/A	N/A

1 - For outfall areas considering an infiltration BMP indicate if an infiltration BMP is well-suited, potentially suitable, has limited suitability, or is unsuitable for the outfall area.



DRAINAGE AREA
BOUNDARY

REQUIRED ROW

PROPOSED
FEASIBLE BMP

OUTFALL

SCALE IN FEET

REVISION DATES

NS4 DRAINAGE MAP

CHECKED:		DATE:		DRAWING No. 13-0000
BACKCHECKED:		DATE:		
CORRECTED:		DATE:		
VERIFIED:		DATE:		

PROJECT CONCEPT REPORT

ATTACHMENT 6

ADDITIONAL DOCUMENTS

P.I. No. 0013726
Fayette County

PROJECT CONCEPT REPORT

ATTACHMENT 6

A. CONCEPT TEAM MEETING MINUTES

P.I. No. 0013726
Fayette County

Subject:

SR 54 at SR 74 CFI
PI. 0013726, Fayette County

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Fax 770 435 2666
www.arcadis.com

Meeting Location:

GDOT District 3 Office
115 Transportation Blvd.
Thomaston, GA 30286

Participants:

[See Sign-In Sheet]

Meeting Date:

June 14, 2017

Minutes by:

Chuck Fisher

Issue Date:

June 21, 2017

MEETING DISCUSSION AND COMMENTS

Timeline:

- Additional comments to be provided by 6/23/2017.

Summary:

Stanley Mack from GDOT Traffic Ops started with a brief introduction and everyone introduced themselves. Next, Jody Peace from Arcadis discussed the Operational Improvement Program and the overall need for SR 54 at SR 74.

- The Operational Improvement Program is designed to provide targeted improvements and reduce scope project for quick implementation.
- All projects have been reviewed and approved by the Operational Improvement Committee.

SR 54 at SR 74 Project Need

- The intersection improvement need was identified by the State Traffic Operations and District Staff who observed high traffic volumes and queuing issues at the adjacent intersection of Market St and Huddleston Rd.
- The intersection delay at the a.m. peak hour is 74.3 sec/veh, operating with an E LOS. The intersection delay at the p.m. peak hours is 142.2 sec/veh with an F LOS.

SR 54 at SR 74 Proposed Improvements

- The preferred alternative is to convert SR 54 at SR 74 into a CFI.
- A CFI will reduce the existing AM peak hour approach delay for SR 74 northbound from 51.3 sec/veh in the to 46.2 sec/veh, a 10 percent decrease.

- In the build year the SR 74 northbound delay is expected to reduce by 79 percent from 271.2 sec/veh to 56.7 sec/veh compared to no-build conditions. The existing PM peak hour delay is expected to reduce by 78 percent from 201.2 sec/veh to 43.3 sec/veh.
- The SR 74 Southbound existing year AM peak hour approach delay is expected to reduce by 15 percent from 42.8 sec/veh to 36.3 sec/veh.
- The overall existing year AM peak hour intersection delay is expected to decrease by 5 percent from 74.3 sec/veh to 70.7 sec/veh.
- The total cost for the following improvement is \$7,594,257 and a B/C of 17.1.

The meeting concluded with Chuck Fisher and Jody Peace addressing questions and concerns from the attendees. They are as follows:

- Rename the intersection design as a DLT (Displaced Left Turn) rather than a CFI (continuous flow intersection). (Tyler Peek)
- There is potential for a bigger project. Consider analyzing the impact of a full CFI and provide a cost estimate for a full CFI as a third alternative. (Michael Presley)
- Replace the deceleration lane at Marketplace Blvd taken out by the current design.
- Check Transmission Pole callout/utility and update.
- Regarding public outreach, design consultant GDOT DRG for visuals of the project.
- With improvements, SR 74 SB turns into a trap right.
- Add MS4 BMP costs in Cost Estimate and revisit the Traffic Control Cost.

Report by Section and associated Comment(s)

- Project Location Map – No comment
- **Planning & Background Data:**
 - **Refer to SR 54 as EB/WB and SR 74 as NB/SB.**
- Design and Structural – No comment
- Utility and Property – No comment
- Environmental and Permits – No comment
- Coordination, Activities, Responsibilities, and Costs – No comment
- **Alternative Discussion:**
 - **Create full CFI third alternative.**
- List of Attachment/Supporting Data –
 - **Attachment 1: Concept Layout:**
 - **Provide deceleration lane for Marketplace Blvd**
 - **Revise street name from Westpark Walk to Commerce Dr**
 - **Revise callout for Transmission pole**
 - **Consider revising Commerce Dr to right in right out access.**
 - Attachment 2: Typical Sections – No comment
 - **Attachment 3: Cost Estimates –**
 - **Review traffic control cost and ensure MS4 BMP cost is included**
 - Attachment 4: Traffic Diagrams – No comment
 - **Attachment 5: Summary of Traffic Study Synopsis – Update traffic operational analysis**
 - Attachment 6: MS4 Concept Report Checklist – No comment

RECORD OF MEETING

- Attachment 7: Environmental Screening Memo – No comment

MEETING SIGN-IN
PI.0013726, Fayette
SR 54 at SR 74

[illegible]

PROJECT CONCEPT REPORT

ATTACHMENT 6

B. INTERSECTION CONTROL EVALUATION (ICE) DOCUMENT

P.I. No. 0013726
Fayette County

GDOT PI #	0013726	1 Does alternative address the project need in a balanced manner and in scale with the project? 2 Does alternative improve safety performance in terms of reducing severe crashes? 3 Does alternative incorporate convenience and accessibility for pedestrians and/or bicyclists? 4 Does alternative improve (or preserve) traffic operations (congestion, delay, reliability, etc.)? 5 Does alternative appear feasible given the site characteristics, constraints and location context? 6 Does alternative appear feasible with respect to other project factors? 7 Overall feasible alternative (select alternative for further evaluation in Stage 2)?	Version 1.8 Revised 4/14/2017						
Major Route:	SR 54								
Minor Route:	SR 74								
Prepared by:	Arcadis U.S., Inc.								
Analyst:	M. McGinley								
Date Completed:	5/10/2017								
Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record. Enter justification in the rightmost column. Note: No more than 5 alternatives may be selected and evaluated in Stage 2.									
Intersection Alternative:		Screening Decision Justification:							
Unsignalized	Conventional (Minor Stop)	No	No	No	No	No	No	No	N/A - Existing intersection is signalized
	Conventional (All-Way Stop)	No	No	No	No	No	No	No	N/A - Existing intersection is signalized
	Mini Roundabout	No	Yes	No	No	No	No	No	N/A - Existing has 2-lane and 3-lane through approaches
	Single Lane Roundabout	No	Yes	No	No	No	No	No	N/A - Existing has 2-lane and 3-lane through approaches
	Multilane Roundabout	No	Yes	Yes	No	Yes	No	Yes	Potential safety benefit if the volumes are accommodated
	RCUT (unsignalized)	No	No	No	No	No	No	No	High left-turning volumes
	RIRO w/downstream U-Turn	No	No	No	No	No	No	No	High through and left-turning volumes
	Unsignalized High-T	No	No	No	No	No	No	No	N/A - Existing is a four-leg intersection
	Offset-Tee Pair	No	No	No	No	No	No	No	High through volumes
	Other Unsignalized (provide description):	No	No	No	No	No	No	No	N/A
	Other Unsignalized (provide description):	No	No	No	No	No	No	No	N/A
Signalized Intersections	Traffic Signal	No	No	No	No	No	No	No	N/A - Existing is signalized
	Median U-Turn (Indirect Left)	No	No	No	No	Yes	No	No	High left-turning volumes
	RCUT (signalized)	No	No	No	No	Yes	No	No	High left-turning volumes
	Displaced Left Turn (CFI)	Yes	No	No	Yes	Yes	Yes	Yes	High left-turning volumes, some ROW available
	Continuous Green-Tee (Hight-T)	No	No	No	No	No	No	No	N/A - Four leg intersection
	Jughandle (Any Corner)	No	No	No	No	Yes	No	No	Adjacent roadways cannot handle high left-turning volumes
	Quadrant Roadway (Any Corner)	No	No	No	No	Yes	No	No	Available quadrant roadway cannot handle high left-turning volumes
	Diverging Diamond (Ramp Terminals)	No	No	No	No	No	No	No	N/A - Not an interchange
	Single Point Interch (Ramp Terminals)	No	No	No	No	No	No	No	N/A - Not an interchange
	Other Signalized (provide description):	No	No	No	No	No	No	No	N/A
	Other Signalized (provide description):	No	No	No	No	No	No	No	N/A

 = Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record



GDOT ICE STAGE 2: ALTERNATIVE SELECTION DECISION RECORD

Version 1.8
Revised 4/14/2017

Project Information

GDOT PI # (or N/A) 0013726
County: Fayette
Project Location: SR 54 @ SR 74

GDOT District: 3 - Thomaston
Area Type: Suburb/Transition

Date: 5/10/2017
Agency/Firm: Arcadis U.S., Inc.
Analyst: M. McGinley

Existing Intersection Control: Signal (turn lanes on mainline)

Type of Analysis: Conventional Non-Safety Funded Project

Existing Conditions

Intersection meets Signal warrants?
Intersection meets AWSC warrants?
Traffic Analysis Software
Existing Pk Hr Intersection Delay*
Existing Intersection V/C ratio*
Design Year
Design Year Intersection Delay*
Design Year V/C Ratio*

Yes
Synchro 8
142.2 sec
0.93
2035
425.4 sec
1.49

* = worst case AM/PM results

Crash Data:

	Crash Severity		
	PDO	Injuries	Fatalities
3 most recent years of intersection crash data			
Angle	17	3	0
Head-On	1	0	0
Rear End	163	33	0
Sideswipe - same	17	0	0
Sideswipe - opposite	0	0	0
Not Collision w/Motor Veh	4	0	0
TOTALS:	202	36	0

Alternatives Analysis

Proposed Control Type/Improvement

Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Multilane Roundabout	Displaced Left Turn (CFI)	N/A	N/A	N/A

Project Cost

Construction Cost	\$2,985,409	\$5,777,053		
ROW Cost	\$449,629	\$1,222,500		
Environmental Cost	\$0	\$0		
Reimbursable Utility	\$149,270	\$462,164		
PE+Contingency Cost (30%)	\$1,075,292	\$2,238,515		
Total Cost	\$4,659,600	\$9,700,232		

Traffic Operations

Design Yr Intersection Delay	738.0	110.2		
Design Yr V/C Ratio	2.79	0.75		
Traffic Analysis Software	SIDRA 7	Synchro 8		

Safety Analysis

Predefined CRF: PDO	26%	0%		
Predefined CRF: Fatal/Inj	71%	0%		
User Defined CRF: PDO				
User Defined CRF: Fatal/Inj				
User Defined CRF Source (if applicable):				

Environmental Impacts

Historic District/Property	None	None	None	None
Archaeology Resources	None	None	None	None
Graveyard	None	None	None	None
Stream	None	None	None	None
Underground Tank/Hazmat	None	None	None	None
Park Land	None	None	None	None
Environmental Justice Community	None	None	None	None
Wooded Area	None	None	None	None
Wetland	None	None	None	None

Political Factors

If environmental impact is highlighted **RED**, provide justification impact won't jeopardize project delivery on ENV worksheet tab.

Local Citizen Support	Neutral	Neutral	Neutral	Neutral
Local Government Support	Neutral	Neutral	Neutral	Neutral
GDOT District Office Support	Neutral	Neutral	Neutral	Neutral
GDOT Central Office Support	Neutral	Neutral	Neutral	Neutral

Final ICE Stage 2 Score

-3.7	2.3	-	-	-
Rank of Control Type Alternatives: 2	1	-	-	-

Note: Stage 2 score is not shown (shown as "-") if signal or AWS is selected as control type but signal or AWS warrants are not met

Provide any additional general comments or explain analysis inputs (as necessary):

Intersection delay results for existing, design year no-build, and alternative 2 (CFI) obtained from Simtraffic
v/c results for existing, design year no-build, and alternative 2 (CFI) obtained from Synchro

PROJECT CONCEPT REPORT

ATTACHMENT 6

C. TRAFFIC STUDY SYNOPSIS PRESENTED TO STATEWIDE OPERATIONAL IMPROVEMENT COMMITTEE

P.I. No. 0013726
Fayette County

PROJECT SYNOPSIS PRESENTED TO OPS COMMITTEE JULY 2015

Operational Improvement Potential Project			
SR 54 at SR 74			Date Presented: April 2015
GDOT District:	District 3	County:	Fayette
Project Type:	Intersection Improvement	City:	Peachtree City

Description of the Problem:
It was observed that: <ul style="list-style-type: none">SR 74 northbound left traffic to SR 54 westbound backs up on the SR 74 mainline.SR 74 southbound right traffic to SR 54 westbound backs up on the SR 74 mainline.SR 54 eastbound left traffic to SR 74 northbound backs up on the SR 54 mainline.1st

Proposed Improvement:
Evaluate the need for a Continuous Flow Intersection (CFI) at the Intersection of SR 54 and SR 74. Also, evaluate the operations by providing exclusive lane for SR 74 southbound right traffic to SR 54 westbound.

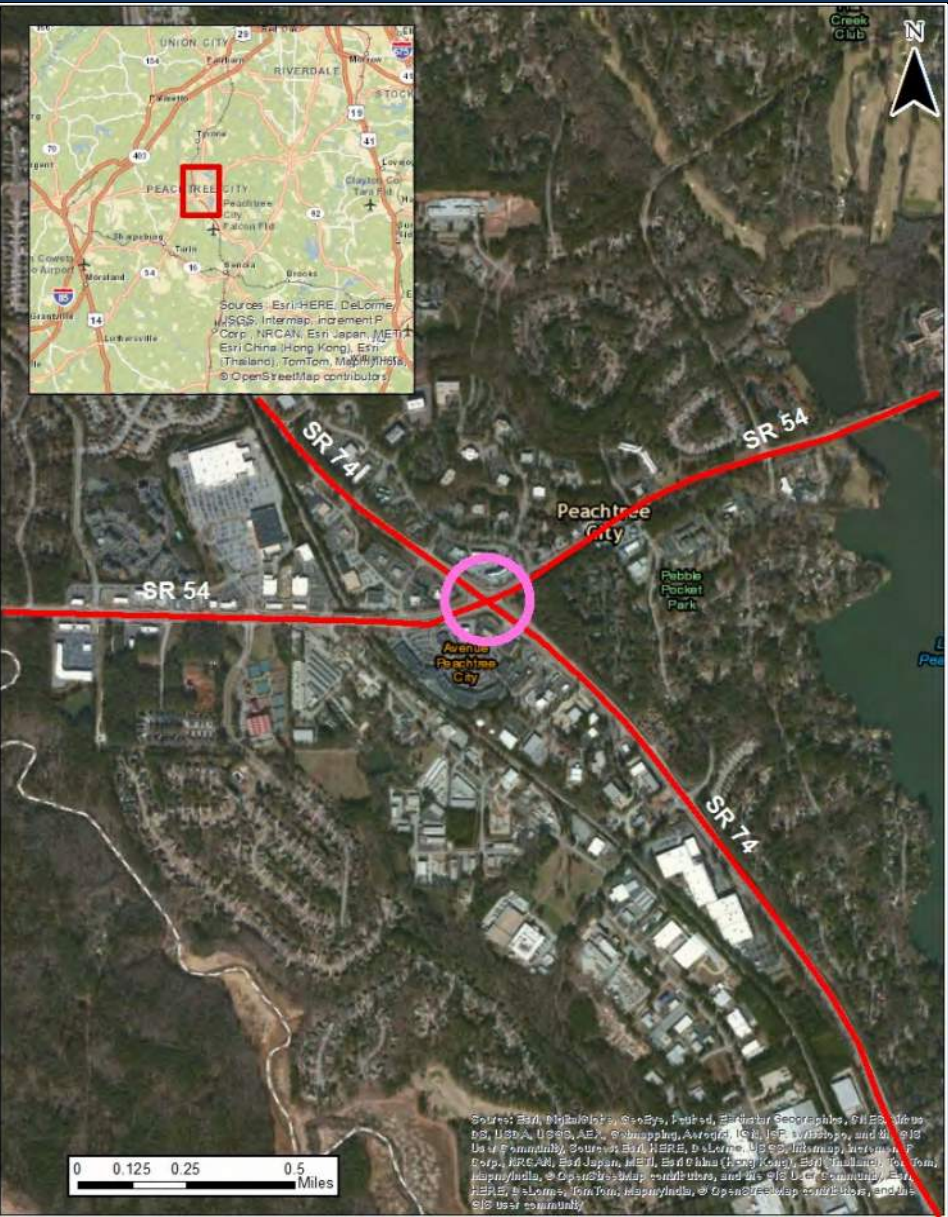
Right of Way acquisition required?	
<input type="checkbox"/> None	<input type="checkbox"/> Minimal
<input checked="" type="checkbox"/> Yes, 4+ parcels	
Initial Environmental Concerns?	<input type="checkbox"/> Yes
	<input checked="" type="checkbox"/> No
Other programmed projects in the area:	

Traffic Volume	Year	AADT
Existing Conditions	2015	See Attached Sheets for AM/PM Peak Hour Volumes
Open Year	2015	See Attached Sheets
Design Year	2035	See Attached Sheets
Pedestrian Activity?		Yes

Anticipated Benefits Table: (LOS, Delay Reduction, Modeling output, etc.)										
Approach Delay (Sec/Veh) and Level of Service – (based on SimTraffic Analysis)										
Approach	AM Peak Hour					PM Peak Hour				
	Existing (2015)	Open Build (2015)	No-Build (2035)	Build (2035)	% Change in Delay	Existing (2015)	Open Build (2015)	No-Build (2035)	Build (2035)	% Change in Delay
SR 74 Northbound	51.3 LOS D	46.2 LOS D	271.2 LOS F	56.7 LOS E	-79%	201.2 LOS F	43.3 LOS D	331.7 LOS F	50.0 LOS E	-85%
SR 74 Southbound	42.8 LOS D	36.3 LOS D	235.5 LOS F	43.7 LOS D	-81%	58.1 LOS E	31.6 LOS C	199.1 LOS F	37.3 LOS D	-81%
Overall Intersection Delay (Sec/Veh) and Level of Service – (based on SimTraffic Analysis)										
Intersection	AM Peak Hour					PM Peak Hour				
	Existing (2015)	Open Build (2015)	No-Build (2035)	Build (2035)	% Change in Delay	Existing (2015)	Open Build (2015)	No-Build (2035)	Build (2035)	% Change in Delay
SR 54 at SR 74 intersection	74.3 LOS E	70.7 LOS E	307.9 LOS F	113.5 LOS F	-63%	142.2 LOS F	79.8 LOS E	425.4 LOS F	110.2 LOS F	-74%

Initial Project Cost Estimate (\$):					
PE:	\$1,000,000	ROW:	\$1,222,500	CST:	\$6,239,217

Total Project Benefit:			
Design Life Operational:	\$129,933,379	Total Cost:	\$8,461,717

Location: (Attach Map, Image or Sketch):	
	

Proposed Improvement: (Attach Map, Image or Sketch):
- See Attached Sheets

PROJECT CONCEPT REPORT

ATTACHMENT 6

D. LOCAL LIGHTING AGREEMENT

P.I. No. 0013726
Fayette County

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

INDICATION OF LIGHTING SUPPORT

Georgia Department of Transportation
Office of Program Delivery - GSP
600 West Peachtree Street, Suite 1550
Atlanta, Georgia 30308
ATTN: Allen Johnson, Project Manager

Location

The City of Peachtree City supports the consideration of lighting at the location specified below.

Description: *SR 54 @ SR 74 Displaced Left Turn*

State/County Route Numbers: *SR 54 and SR 74*

Project: *Fayette County; PI 0013726*

Associated Conditions

The undersigned agrees to participate in the following maintenance of the intersection in the event that the lighting is selected as the preferred concept alternative:

- The full and entire cost to energize the lighting system installed and to provide for the operation/maintenance thereof.

We agree to participate in a formal *Local Government Lighting Project Agreement* during the preliminary design phase. This indication of support is submitted and all the conditions are hereby agreed to. The undersigned are duly authorized to execute this agreement.


Attest:



City Clerk

This *5* day of *March*, 20*18*

By:



Title: *City Manager*